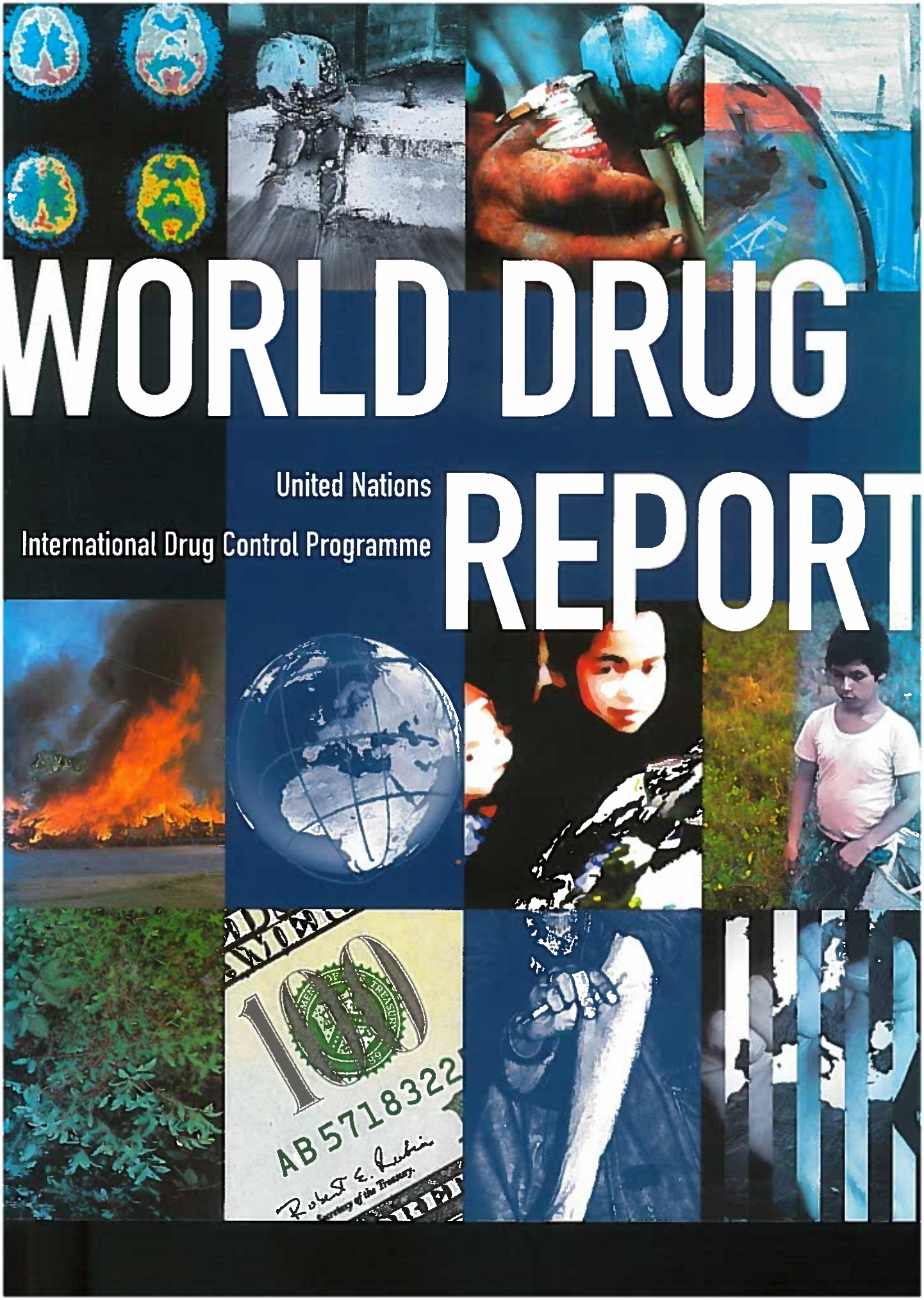
WORLD DRUG REPORT

United Nations

International Drug Control Programme



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FOREWORD

by the Secretary-General of the United Nations

Illicit drugs destroy innumerable individual lives and undermine our societies. Confronting the illicit trade in drugs and its effects remains a major challenge for the international community. Although the consumption of drugs has been a fact of life for centuries, addiction has mushroomed over the last five decades. It now demands a determined and international response.

The basis for such action lies in the three international drug control treaties and their implementation by the United Nations International Drug Control Programme. The environment within which this control system operates is changing rapidly, and up to date information is therefore needed to respond quickly and effectively to all aspects of the problem: the manufacture, trafficking and abuse of illicit drugs. I believe it is the responsibility of the United Nations to take the initiative in raising public awareness of those aspects of the drugs problem which now affect every community in every nation.

Many entities of the UN system have begun to present global analyses of developments and trends in their areas. I encourage the United Nations International Drug Control Programme to present comprehensive information to help in responding to the challenge of international drug control. Such data will enhance the capacity of the Organization as a whole to respond effectively to the global drugs menace.

KOFI ANNAN
Secretary-General of the United Nations

FOREWORD

by the Executive Director of the United Nations International Drug Control Programme

All over the world individuals and societies face an illicit drug problem whose scale was unimaginable a generation ago.

The drug phenomenon is unique in the number of aspects of people's lives which it affects - the health of the individual, political and economic development, the safety of the streets and the stability of governments. Its many ramifications complicate the task of all those individuals and organizations, like the United Nations International Drug Control Programme (UNDCP) , which are dedicated to tackling the problem. But they also clarify the direction in which we must proceed. We must approach drug abuse by first understanding its relationship with the other issues affecting societies.

Drug addiction prevents the individual from realizing his or her full potential. In doing so, it acts as an obstacle to social development. The social and economic costs of drug abuse place an intolerable strain on the social infrastructures of developed and developing countries alike. The illicit production of drugs diverts human and natural resources from more productive activities and weakens the foundation for long-term economic growth. As drug abuse affects more and more countries, the power of international drug trafficking organizations threatens to corrupt and destabilize the institutions of government. The crime associated with drugs, much of it violent, makes a misery of many lives.

In the past, attention focussed principally on the product - the illicit drugs themselves. Discussion largely concentrated on how to stop drugs from crossing borders, how to halt their production and how to limit or prosecute their consumption. These are important aspects, but not the whole picture. In recent years, the focus has become more balanced, with a shift in emphasis towards the individual, the ultimate victim of this global malady.

As the organization responsible for leading United Nations action against the global drug problem, UNDCP sees the effects which drugs have day-to-day on people's lives. From this perspective we see that much more needs to be done to identify, understand and contain the forces which lead individuals to resort to drugs. It is the objective of reaching people in this way which should serve as the guiding principle for all drug control activities, be they national, regional or international in scope.

Information and a better understanding of the problem are essential prerequisites for progress in meeting this aim. The World Drug Report cannot provide answers to all the questions about illicit drugs. But it can at least demonstrate the importance of knowing more about them. It can also help focus the international debate on the action which is needed to deal with the tragedy now unfolding on our streets, in our families and in our communities all over the world.

GIORGIO GIACOMELLI
Executive Director of the United Nations
International Drug Control Programme

Introduction

WHY A WORLD DRUG REPORT?

The illicit drug cycle – from the source of natural plants or the chemical laboratory through the processing and manufacturing stages to consumption and the laundering of profits – encompasses developing and industrialized countries alike. Drug policies based on the division of the world into 'producer' and 'consumer' countries – if ever such an arbitrary separation applied – have been superseded by social and economic developments and by geopolitical upheavals of staggering proportions. Instant communications and the ease of world travel, the opening up of national boundaries and the deregulation of trade and finance mean that events in one part of the globe can have immediate repercussions in another. No nation, however remote a corner of the globe it occupies, however robust its democracy, is immune to the adverse consequences of drug abuse and trafficking, although countries whose social and institutional fabric is weak are particularly vulnerable.

The regularity with which the world's media refer to drugs has created a deceptive sense of familiarity with the phenomenon. In reality, our stock of hard knowledge is woefully inadequate. Research efforts are continually held back by the clandestine nature of the drugs trade, on whose 'hidden population' data is inevitably partial, of poor quality and liable to massage for political purposes. Moreover, wide divergences in the definition of terms and in methodologies for collecting and analysing data, preclude significant comparisons over time or between countries. Some gaps in our knowledge could be bridged by a more conscientious and homogeneous approach to data collection, but at present the limitations on our knowledge prevent us from drawing firm conclusions or from making reliable predictions for the future. The reluctance by serious scholars to be drawn into debates on 'How many drug addicts are there?', or 'What are the profits of the illicit drug industry?' has left a vacuum which all too often is filled by an unsubstantiated hotchpotch of myth and anecdotal evidence.

One of the principal aims of this first World Drug Report is therefore to de-sensationalize the drugs issue, to replace jargon and slogan with a serious analysis of what is known and, just as importantly, to highlight what is *not* known, about the unlawful production, use and trafficking of psychoactive substances under international control.

Bearing in mind that many countries with little past experience of drug issues are now facing an urgent need to formulate policies and strategies, the Report also aims to provide a broad overview of the world drug situation, and to help the reader to evaluate a range of options and their potential consequences in a context which extends beyond national horizons. At a more general level, the World Drug Report is concerned to raise public awareness of the scope and complexity of drug problems in as objective a manner as possible, free of rhetoric or political bias.

The 'uniqueness' of drugs

Society's ambivalence towards psychoactive substances is epitomized by the ancient Greek word *pharmakon*, signifying both *medicine* and *poison* – the means both of saving and of taking life. Drugs are taken for the relief of pain, for the treatment of disease, to change mood to soporific euphoria or to hyperactive exuberance, to find or to lose identity, to escape, to forget and to explore. The body and sometimes the mind can so crave these sensations that their absence becomes intolerable and drives some users to extremes in order to assuage the desire for more. Others may indulge in occasional or recreational use without ever becoming enslaved. Science has not yet taught us to predict who will become a slave and who a master.

In economic terms drugs are consumer goods, traded in a market place and therefore subject to the laws of supply and demand – albeit in ways which are distinct from non-dependence-producing goods. But only in the illicit drug industry can seizures of between 10 and 30 percent of production, the forfeiture of a (small) percentage of financial and other assets and the loss, through death or imprisonment, of a percentage of operatives, impose merely an

imperceptible or short-term impact on retail price and still allow large net profits at every stage of the distribution chain.

Another unique feature is the politically weighted content of drug policy. This stems primarily from the perception of drug trafficking as a national and international security threat, but is accentuated by the participation in the drug production process of many Third World nations, for whom economic and other aid may well be linked to anti-drug efforts.

Report contents

The report will start with the basics – by looking at what drugs are, at the types of drug subject to international control and at definitions of terms such as *dependence* and *abuse*. Part 1 'sets the scene' by providing a global overview of recent patterns and trends in illicit drug production, trafficking and consumption; Part 2 looks at the range of theories put forward to explain why people take drugs, while recognizing that every individual decision to take drugs illicitly depends on a unique blend of circumstances; Part 3 studies the effects of drugs on the human organism and at the social impact on individuals, families and communities; Part 4 discusses the consequences of the illegal drug economy at national and international level. Not all the costs of illicit drug use are capable of being quantified, but any attempt to do so must take account of the burden of prevention, treatment and rehabilitation programmes for consumers, of accidents on the road and at work; of loss of productivity and earnings, of the costs of drug-related crime to individual citizens and to companies, and to the criminal justice system in terms of police action, court time and imprisonment. Economies suffer from loss of tax revenue on undeclared earnings, and democratic rule from the suborning of public officials through intimidation and corruption. The profits derived from illicit trafficking seem to provide few, if any, long-term macro-economic benefits for the countries concerned. The 'beneficiary' states are most often depicted as Third World nations, plunged into economic difficulties by collapsing prices of agricultural and mineral raw materials, but it has also been suggested that the national budget deficits of industrialized nations may be being financed by "... the re-cycled narco-dollars from the drug habits of [*their*] own socially deprived, inner-city inhabitants."[1] Parts 5 and 6 will turn to the roles and responsibilities of national and international bodies in tackling the spectrum of drug problems, and to the strategies used to reduce the demand for, and supply of, illicit drugs. Part 7 concludes the Report by taking a closer look at the drug problems of eight 'core countries' – Australia, Colombia, Italy, Pakistan, Sweden, Thailand, UK and the USA – and how these problems have been tackled in recent years. This section of the Report is the result of a compromise between the practical impossibility of describing a global problem in all its diverse aspects and the aim of providing a better understanding of a country's drug problems by analysing them within the context of cultural, demographic, institutional and legal variables. The selection of countries was made on the basis of geographical diversity and on the existence in these countries of a systematic collection system for direct and indirect drug-related data.

DRUGS AND DRUG TERMINOLOGY

Drug

The definition of the word *drug* proposed by the World Health Organization (WHO)[2] and used in this Report refers to all psychoactive substances, i.e., "... any substance that, when taken into a living organism, may modify its perception, mood, cognition behaviour or motor function." This distinction includes alcohol, tobacco and solvents and excludes medicinal, non-psychoactive substances. Alcohol and tobacco, considered as *substances* rather than *drugs*, are only dealt with here in as much as they relate to the principal focus of the report, namely the unauthorized or non-medical use of drugs which, because of their potential for causing dependence, have been brought under international control. In some parts of the world prescription drugs are the principal cause of drug abuse, and this phenomenon will be analysed where appropriate. Volatile solvents such as those found in glue, although not under international control, are frequently used by young children, and are discussed in Part 3. Drugs which are not psychoactive but are taken for non-medical reasons, for example by athletes who take anabolic steroids to improve their performance, are not included. However since this does not purport to be a drugs encyclopaedia, but a report on the effects of drugs on individuals and on society, the principal focus is on people.

Licit/illicit drugs

The UN drug control Conventions do not recognize a distinction between licit and illicit drugs and describe only *use* to be licit or illicit. For the sake of readability, the World Drug Report also uses the term *illicit drugs* to describe drugs which are under international control (and which may or may not have licit medical purposes) but which are produced, trafficked and/or consumed unlawfully or illicitly.

Use/harmful use/abuse/misuse

Until 1968 WHO defined *drug abuse* as:
"... persistent or sporadic excessive drug use inconsistent with, or unrelated to, acceptable medical practice." But the term was felt to be ambiguous and was replaced with *harmful use*, defined as "... a pattern of psychoactive substance use that is causing damage to health ... physical or mental". WHO only uses the terms *abuse* and *misuse* when individual psychoactive drugs are discussed in the context of international control, for the sake of consistency with the three United Nations international drug control Conventions of 1961, 1971 and 1988 (see Part 5). The UN Conventions do not in fact define drug abuse, and use a variety of terms including *abuse*, *misuse* and to use ... *illicitly*. These terms are understood to mean "... the use of illicit substances and, for licit substances, use without prescription and/or in contravention of the specified dose".[3]

For those unfamiliar with the variations in official terminology the exact significance of *abuse* and *misuse* can be confusing, since what constitutes a drug abuse problem will almost certainly vary between countries as a result of differing attitudinal and cultural perspectives.[4] Moreover, the term *drug abuser* makes no distinction between infrequent, habitual, or dependent use. In general, the World Drug Report has opted for neutral terms such as *to use*, *to take* or *to consume* drugs, and uses *abuse* to mean harmful use, i.e., a pattern of use that causes damage to physical or mental health, for example, (a) regular or daily use when the use is important, often to the exclusion of other aspects of life; or (b) "binge" type use where an individual may use drugs for short periods, but intensively. Drug *misuse* is used in this Report to indicate the unauthorized or excessive use of prescribed or over-the-counter drugs.

Drug addiction/dependence

In 1963, the WHO Expert Committee on Drug Dependence decided to abandon the terms *addiction* (derived from the latin verb *addicere*, to bind a person to one thing or another) and *habituation* in favour of *dependence*, defined as:[5]
"A state, psychic and sometimes also physical, resulting from the interaction between a living organism and a drug, characterized by behavioural and other responses that always include a compulsion to take the drug on a continuous or periodic basis in order to experience its psychic effects, and sometimes to avoid the discomfort of its absence. Tolerance may or may not be present. A person may be dependent on more than one drug." In 1992 further clarification was thought necessary, and the term was modified to:
"A cluster of physiological, behavioural and cognitive phenomena of variable intensity, in which the use of a psychoactive drug (or drugs) takes on a high priority. The necessary descriptive characteristics are preoccupation with a desire to obtain and take the drug and persistent drug-seeking behaviour. Determinants and the problematic consequences of drug dependence may be biological, psychological or social, and usually interact."

Dependence/dependence syndrome

Diagnostic guidelines for the mental and behavioural disorders due to the use of psychoactive substances (the ICD-10 Classification of Mental and Behavioural Disorders), provide a clinical description of *dependence syndrome* and indicators for diagnosing the disorder. The essence of both *dependence* and *dependence syndrome* is "... a strong desire or sense of compulsion to take the drug, as manifested by drug-seeking behaviour which is difficult to control." Because of the difficulty of distinguishing physical and psychic dependence the WHO Expert Committee decided not to define this in clinical terms.

Withdrawal syndrome/tolerance

Withdrawal syndrome and *tolerance* are both described as *consequences* of drug exposure, but alone are not considered sufficient for a positive diagnosis of drug dependence. *Withdrawal syndrome* is described as follows:[6] "... after the repeated administration of certain dependence-producing drugs ... abstinence can increase the intensity of drug-seeking behaviour because of the need to avoid or relieve withdrawal discomfort and/or produce physiological changes of sufficient severity to require medical treatment." *Tolerance* is, "... decreased responsiveness to a specific effect of the same dose of a drug as a result of prior exposure to it."

Tolerance, dependence and abuse are not inevitable consequences of the illicit use of drugs, nor is the existence of a state of dependence necessarily harmful *per se*, but it may lead to the self-administration of drugs at dosage levels that produce deleterious physical or behavioural changes constituting public health and social problems. Drug-related problems may either refer to *patterns of use* – single or sustained, or *type of problem* – acute or chronic physical health problems. Acute problems tend to be linked to 'drug-use events' and chronic use to sustained drug use. However one drug-use event such as the sharing of an HIV-infected needle can result in permanent impairment and, conversely, a prolonged pattern of use may culminate in a medical emergency.[7]

The consequences of drug abuse are linked to a series of variables which depend upon the characteristics of the drug and those of the consumer, and these are described more fully in Part 3. Social and environmental factors, including the legal status of the drug, are also important – if possession, production or distribution of a drug are illegal, the criminal law may order prosecution and imprisonment, and in some countries capital punishment. Legal status may also have a bearing on the pattern and mode of drug consumption. Furthermore, the social consequences are determined not just by the behaviour of the user but by the reaction of those around the user – whether behaviour is sanctioned or tolerated or rejected by family, colleagues and strangers. The role of formal and informal social controls is discussed in Part 2.

Interpreting – and misinterpreting – drug data

A comprehensive picture of the illicit drugs phenomenon would fulfil four crucial functions for policy makers: it would provide an assessment of how serious a particular global, regional or local problem might be; it would facilitate comparisons between countries and comparisons over time, and would be capable of indicating policy priorities regarding the type of intervention needed in a given sector or geographical area.[8]

The ideal data set would consist of *direct indicators* for all the different sectors of the drug cycle, i.e., data based on the direct observation of cultivation, manufacture, trafficking, consumption and investment (money laundering). Since most of this data is either not available, or at best is partial and of uncertain validity, the extent of illicit drug use and the dimensions of the illicit drug market can only be measured by *indirect indicators*.[9] These are based upon observation of a related phenomenon – such as the quantities of drugs seized by enforcement authorities – from which a total figure may be estimated. Indirect indicators must be used with caution, however: a rise in volume and numbers of seizures could be a sign of increased trafficking, but it could also be the result of increased enforcement activity, or else of a single outsize seizure which distorts a national trend. In either case, an assertion of trends is hard to make without knowledge of prices and purity. Likewise, an increase in drug-related deaths may indicate an increase in consumption, but can also be caused by sudden changes in the purity levels of drugs entering the market. Estimates of cultivation and of consumption also vary widely.

The 'classic' example of comparability difficulties is illustrated by the indicator for drug-related death or, to use the technical term, *substance abuse related mortality* (SARM). According to a global study of SARM carried out for UNDCP, "... there is no clear consensus regarding which types of death should be included in a definition of SARM", nor is there even a common classification to distinguish 'direct' and 'indirect' causes of death.

"Even where (limited) SARM data are available, quantifying the effect of SARM in a given population is problematic without estimates of the size

and characteristics of the drug-abusing population and precise definitions of SARM. Furthermore, SARM data are rarely available in a standardized form and the diversity of substance abuse and types of related mortality do not lend themselves easily to categorisation ... The term 'overdose', although widely used, can be misleading since in many cases it is not clearly established that death is a direct consequence of excessive drug dosage ... To further complicate matters 'overdose' deaths may arise, not as a result of illicit substances *per se*, but because of dilutents which increase the volume of a substance, additives added to enhance the effect of the primary substance or impurities which originate during the manufacturing processes in the case of synthetic substances. In addition to these factors the administration of substances in combination may produce synergistic effects which are not well understood ... In the International Classification of Diseases (ICD 10th Revision) overdoses can be classified either in the 'poisoning' section for cases of accidental intake or in the 'acute intoxication' section for cases of intentional drug taking."[10]

Despite the difficulties outlined above, serious efforts are being made to analyse the illicit drug phenomenon in as scientific a manner as possible. The first and indispensible step to be taken is the collection, codification and recording of elementary data. The data to be collected are called *statistical variables* and these can be either *qualitative or quantitative*. A *qualitative variable* is essentially a special characteristic that (a) may or may not be present or (b) may be present to differing degrees. An example of (a) would be the legal status of a drug, consumption of which for non-medical purposes is usually *either* legal *or* illegal, without any other possibility. An example of (b) would be the frequency of illicit drug use – which could be never, once in a lifetime, monthly, weekly, daily, and so on.

Quantitative variables are essentially a measure – for example the number of seizures of a particular drug or the amount of a seized drug. This type of variable has a fixed unit of measurement (for example, kilograms) and a specified accuracy.

A *statistic* is produced when a mathematical formula is applied to the data. For example, a calculation of the average of the numbers of seizures for different countries or for different years, produces a statistic. In the absence of sound empirical information (as with an illicit activity), *estimates* and *indicators* are used to describe drug-related phenomena from a statistical viewpoint. An *estimate* is any statistic that can be used to approximate an unknown quantity; estimates are affected by estimate errors and these too are capable of evaluation. *Indicators* are statistics which can be used to summarize the behaviour of a particular phenomenon. For example, the lifetime prevalence of drug use can be used as one description of the extent of drug use in a particular country. The most common method of measuring the extent of drug use is through surveys, and these are described more fully in Part 1.

Dependence and interdependence

The drug phenomenon can be viewed as a series of interdependent processes which link the profoundly personal aspects of the problem to its global dimensions. In the first place, the drug-dependent individual may require assistance of many different kinds to overcome dependence, such as medical treatment, counselling, and help from friends, family and community services. Secondly, consumers and producers of drugs are linked through another chain of dependence – for example, the reliance of the heroin addict upon a trafficking network, or the coca grower upon a geographically distant consumer population. The existence of a worldwide network of supply and demand signifies that the associated problems are not those of one country but of all, and that consequently an internationally coordinated, altruistic approach is required. A third element in the series of links is the connection between the casualties of drug-related dependence, crime and violence and those of war, famine, forced migration and the economic crises of the developed and developing countries. In some cases a drug problem may be the cause, but more often is the effect of other societal difficulties. And finally, the chain of interdependence stretches into the future: for example, the policies currently formulated by governments for preventing drug abuse among young people will have long-term implications for the management of health care and welfare resources in ten or twenty years' time. Tomorrow's burden-sharing should be today's concern for every caring citizen and for every honest and responsible government.

ENDNOTES

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Part 1:

Global trends in illicit drug production, trafficking and consumption – an overview

INTRODUCTION

Governments and international organizations regularly collect and analyze data on illicit drug production, trafficking and consumption. In most cases, however, trends can be identified only indirectly due to the inherently clandestine nature of the activities. With this constraint acknowledged at the outset, this chapter seeks to describe global trends on the basis of available information. The overview may help to place in context trends and issues described in subsequent parts of this report.

The illicit drug phenomenon cannot be viewed outside the context of contemporary economic, social and political developments. Changes in the world political economy and advances in technology over the past three decades have had a significant impact on the scope and nature of the illicit drug problem. It is now recognized that rapid growth in the trade of goods and services has resulted in a more interdependent world. Yet despite the positive implications which the increase in world trade has for prosperity and efficiency, sustained growth in international trade can complicate efforts to control the illicit drug problem.

In ways not dissimilar to their counterparts in legal enterprise, criminal organizations involved in illicit drugs respond to opportunities created by a globalizing market economy. The past decade has seen great strides in banking deregulation and the privatization of state owned businesses; however, much of this distancing of official intervention from the day to day workings of the economy has taken place in countries where the regulatory environment is still in an embryonic state. Although these reforms are intended to encourage investment and economic development and to improve efficiency for local consumers and investors, the inadequacy of regulations leaves these economic systems vulnerable to criminal exploitation.

Political events, in particular domestic instability and conflict, are also an important factor. The collapse of state structures in many countries has left an institutional vacuum which has been exploited by drug trafficking organizations. What is more, the rise in drug abuse in such countries has proven extremely difficult to contain because of fragmented and unprepared medical and health authorities. In situations of armed conflict, illicit drug revenues – or the drugs themselves – are regularly exchanged for arms.

In a world that becomes increasingly complex, the scope for profit-making in the illicit drug trade is rapidly expanding. The relationship between illicit drugs and economic development, for example, is far more important than generally recognized: while it is widely accepted that illicit cultivation occurs in many developing countries, the effects of the illegal trade on local communities is all too often assumed to be cost-free. In fact, the spillover of production into abuse has a negative impact on the local workforce. Illicit sector income is unevenly distributed; at the lower level of the production chain it barely exceeds income in the licit sector. The bulk of the profits is generated further downstream, ending up in the hands of the traffickers who control exports to, and distribution in, the country of consumption.

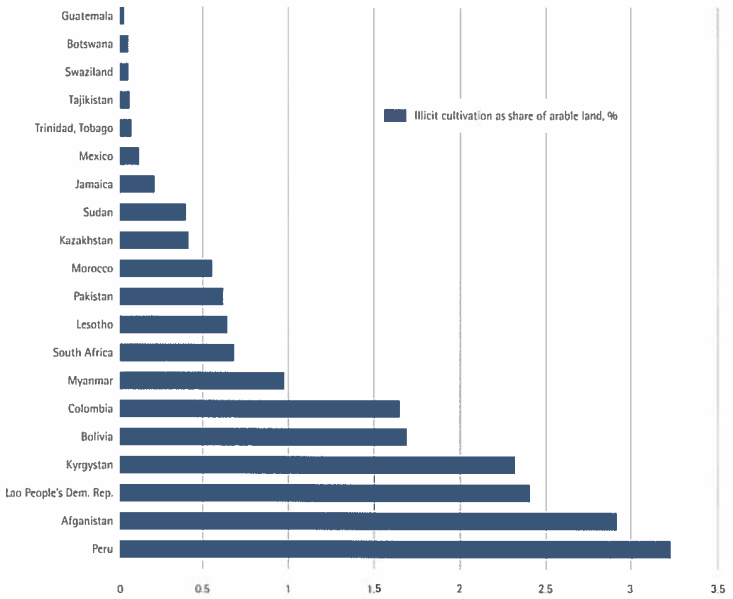
What follows in the remainder of this chapter is an overview of the broad global trends in illicit drug production, trafficking and consumption. While these trends will be examined in greater detail in later parts of this report, the figures and statistics go far in describing the tremendous challenge facing the international community as it seeks to come to terms with the illicit drug problem.

1.1. ILLICIT DRUG PRODUCTION

The countries with the largest cultivation areas relative to arable land are depicted in Fig. 1. In addition to the cultivation of cannabis, the plants used in the illicit production of cocaine and heroin are coca leaf and opium poppy.

Fig. 2 shows global trends in the production of opium poppy and coca leaf. It can be seen that the production of coca leaf has more than doubled and that of opium poppy has more than tripled since

Fig. 1: Illicit cultivation in the early 1990s.



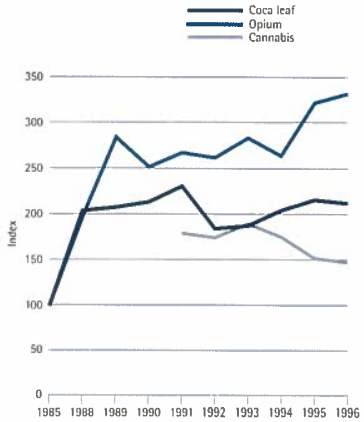
Includes opium, coca and cannabis cultivation. Source: UNDCP database.

1985.[1] Global hectarage devoted to illicit opium poppy cultivation expanded to about 280,000 hectares by 1996. Almost 90% of the world's illicitly produced opiates originate in the two main production areas – the Golden Crescent (Afghanistan, Iran, Pakistan) and the Golden Triangle (Lao PDR, Myanmar, Thailand). Afghanistan and Myanmar are the two main countries of illicit opium poppy cultivation; to a much lesser extent illicit cultivation takes place in Colombia, Lao PDR, Viet Nam, Pakistan, Mexico, India, Thailand and China and the Middle East. Emerging and potentially important producers include the countries of Central Asia.

The illicit production of opium gum was thought to have reached 5,000 tonnes in 1996. About a third of the total is believed to be consumed as opium. The remainder is converted into heroin in illicit laboratories. More than 300 tonnes of heroin are thought to have been produced annually in the 1990's, mostly for export.

Most of the world's coca is grown in the Andean countries – Peru, Colombia, and Bolivia, which together account for more than 98% of world cocaine supplies. Half the global cultivation of approximately 220,000 (1996) hectares takes place in Peru, while Bolivia and Colombia each account for nearly one quarter of the total. Estimates of global illicit production of coca leaves suggest a doubling of production over the 1985 to 1994 period, although production seems to be down from the 1991/1992 peak level.[2] About 1,000 tonnes of cocaine could have been manufactured from the 300,000 tonnes of coca leaf produced in 1996.

Fig. 2: Trends in global production of illicit drugs (Index: 1985 = 100).



Source: Bureau of International Narcotics and Law Enforcement Affairs, *International Narcotics Control Report 1996* (Washington, D.C., Department of State, 1996), p. 25. Base-year figures (1985) are averages of the range provided in Bureau of International Narcotics Matters, *International Narcotics Control Report 1986* (Washington, D.C., Department of State, 1986).

Fig. 3 – 5 show regional trends in cultivation and trafficking between 1985 and 1995. The maps detail the patterns of cultivation in South West Asia, South East Asia, and Latin America. It is clear that during the past decade, illicit drug production and trafficking have spread to new geographical areas. The trend is likely to continue, with illicit drug production expanding in places where law enforcement poses the least threat.

1.2. SYNTHETIC DRUGS

While the global threat posed by heroin and cocaine can be grasped from the above statistics, a brief but specific reference to the particular challenge of synthetic drugs is warranted as well. Since the mid-1980s the world has faced a wave of synthetic stimulant abuse, with approximately nine times the quantity seized in 1993 than in 1978, equivalent to an average annual increase of 16%. The principal synthetic drugs manufactured clandestinely are the amphetamine-type stimulants (ATS) which include the widely abused amphetamine and methamphetamine, as well as the more recently popularized methylenedioxymethamphetamine (MDMA), known as ecstasy, and methcathinone. Lysergic acid diethylamide (LSD) is a synthetic drug also produced clandestinely, whereas sedatives – another type of synthetic drug which includes barbiturates and benzodiazepines – are typically diverted from licit channels.

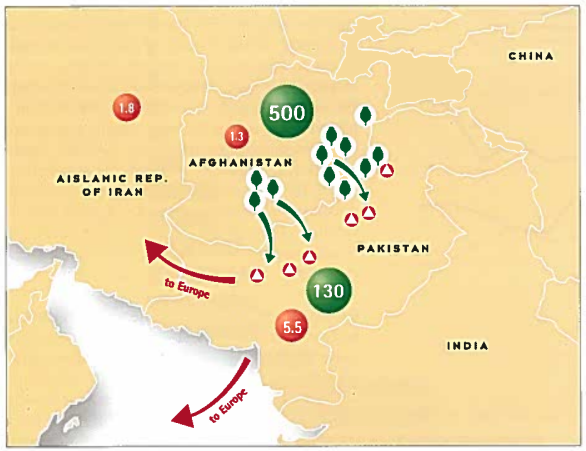
Ephedrine and pseudoephedrine are precursors to methamphetamine and methcathinone, two powerful central nervous system stimulants. *Ephedra* is the plant from which ephedrine and pseudoephedrine – substances that have a stimulating effect – are extracted. Ephedrine has a variety of licit pharmaceutical uses and thus most of the substance available in illicit markets is diverted from licit sources. For instance, there are indications that licitly produced ephedrine in just a few countries has been diverted into illicit stimulant production domestically and abroad. In addition, some illicit production of ephedrine from plants in the wild has been detected in the Central Asian countries of Kazakstan and Kyrgyzstan.

In contrast to the localized outbreaks of abuse in distinct countries in the past, ATS are now consumed in practically every region of the world. The level of ATS abuse compared to cocaine and heroin abuse in the 1990s is shown in Fig. 6.

1.3. DETECTION OF ILLICIT LABORATORIES

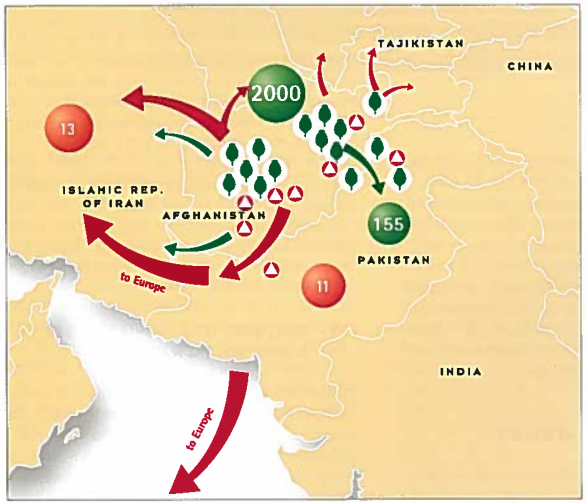
The number of laboratories where drugs are manufactured illegally can serve as an indicator of the amount of illicit drugs produced. However, illicit laboratories are detected only in a small number of countries, with the United States, Poland, and Colombia ranking high on this list. In the USA, 84% of detected laboratories manufactured

Fig. 3: Illicit drug trafficking in South-west Asia, 1985 and 1995.



Estimated opium production (tonnes)
Heroin and morphine seized (tonnes)
Heroin laboratories
Opium
Heroin or morphine
Opium poppy

South-west Asia: Opium poppy cultivation, drug trafficking routes and heroin and morphine seizures, 1985



Estimated opium production (tonnes)
Heroin and morphine seized (tonnes)
Heroin laboratories
Opium
Heroin or morphine
Opium poppy

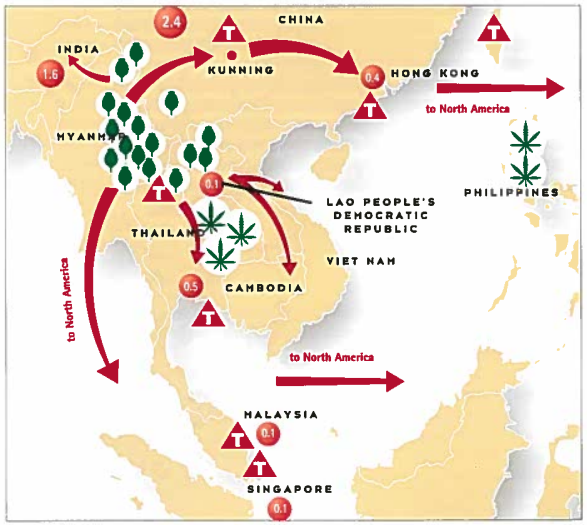
South-west Asia: Opium poppy cultivation, drug trafficking routes and heroin and morphine seizures, 1995

Note: The boundaries shown on this map do not imply official endorsement or acceptance by the UN.

Fig. 4: Illicit drug trafficking in South-east Asia, 1985 and 1995.

Cannabis
Opium poppy
Heroin seized (tonnes)
Transit point

South-east Asia: Illicit crop cultivation, drug trafficking routes and heroin and heroin seizures, 1985

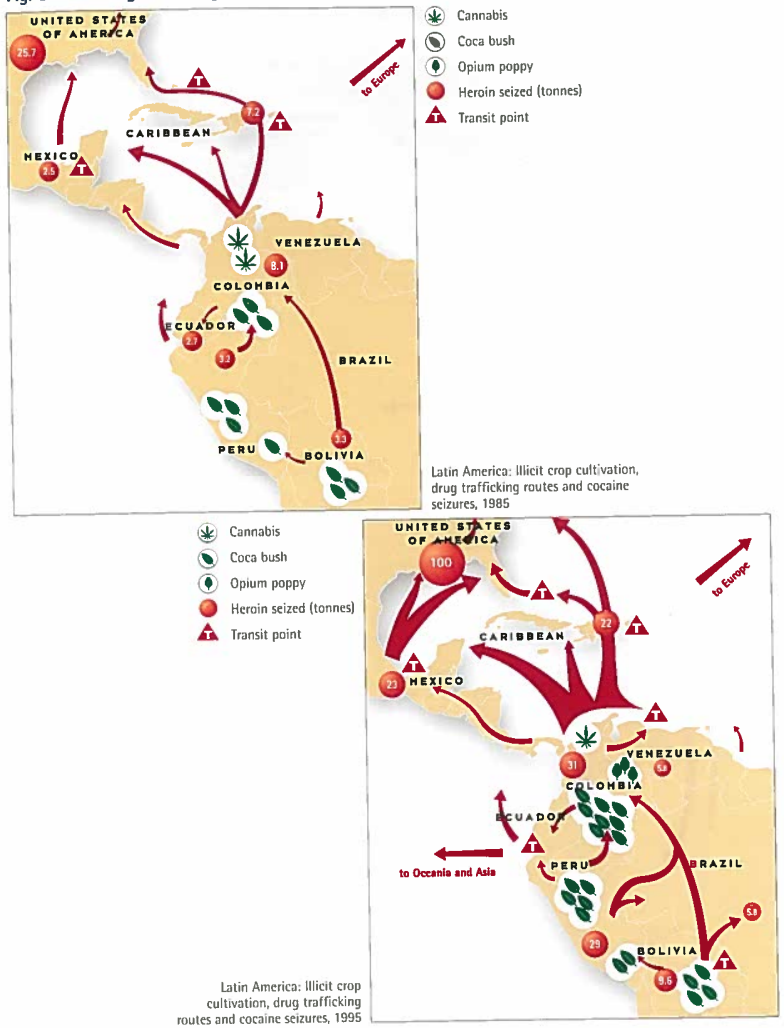


Cannabis
Opium poppy
Heroin seized (tonnes)
Transit point

South-east Asia: Illicit crop cultivation, drug trafficking routes and heroin and morphine seizures, 1995

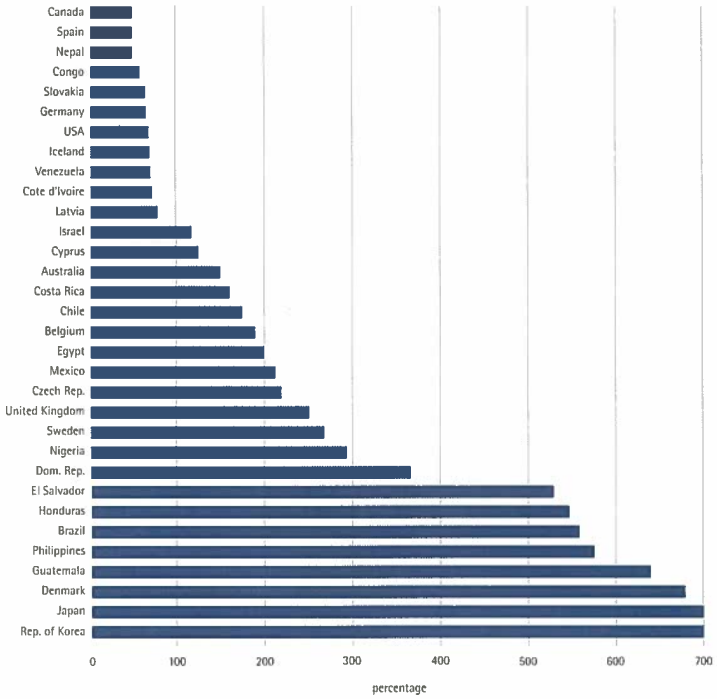
Note: The boundaries shown on this map do not imply official endorsement or acceptance by the UN.

Fig. 5: Illicit drug trafficking in the Americas, 1985 and 1995.



Note: The boundaries shown on this map do not imply official endorsement or acceptance by the UN.

Fig. 6: Average ATS abuse compared to cocaine and heroin abuse in the 1990s (cocaine + heroin = 100).



methamphetamine in the mid 1990s; most Polish laboratories produced extracts from poppy straw, though there were also reports of large scale manufacture of amphetamine; in Colombia, 94% of laboratories were manufacturing cocaine. In the case of heroin and cocaine, one important trend in illicit laboratory production is the shift of production from areas where the necessary chemicals are available to the immediate growing areas.[3]

Over the 1991 – 1994 period, detections of ATS laboratories worldwide exceeded those of both heroin and cocaine laboratories. The share of cocaine laboratories in global detections of clandestine laboratories fell from 58% in 1985 – 1989 to 28% in 1991 – 1994; at 38%, ATS represented the largest share during 1991 – 1994. In Europe, there has been a notable increase in detections of laboratories manufacturing ecstasy (a type of ATS) where since 1990, about 55% of ecstasy laboratories detected worldwide have been located. In the late 1980s, the illicit manufacture of ecstasy was largely confined to North America.

1.4. DRUG SEIZURES

Seizures of drugs by law enforcement agencies are one of the main indicators used to assess the level of illicit drug trafficking. Data on seizures should be interpreted with caution, since the evidence they provide is only an indirect measure of drug trafficking. However, once such data are corroborated by cultivation, price and demand estimates, they can provide important insight into the actual trends in illicit drug production and trafficking.

Throughout the past decade, seizures of most major drugs have risen (See Fig. 7). In terms of volume, the most heavily trafficked drug in the world is cannabis. In 1995, 3,000 tonnes of herbal cannabis and 1,000 tonnes of cannabis resin were seized globally.[4] Worldwide cocaine seizures amounted to 251 tonnes in the same year. Global heroin and morphine seizures amounted to 31 tonnes and 13 tonnes respectively in 1995.[5] The figures also show the share of each region as a proportion of global drug seizures.

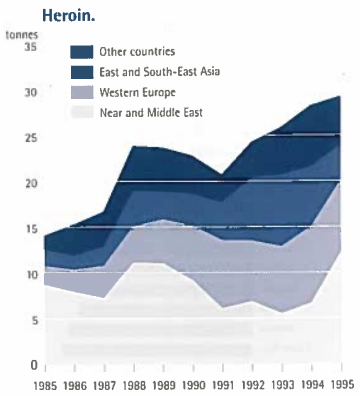
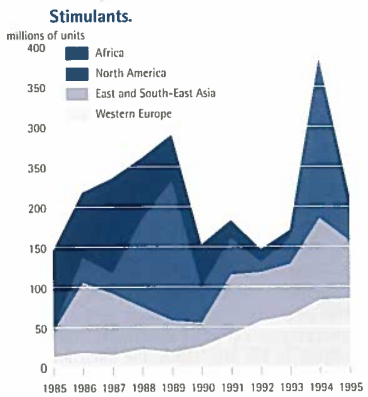
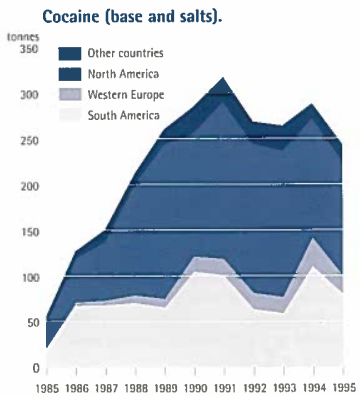
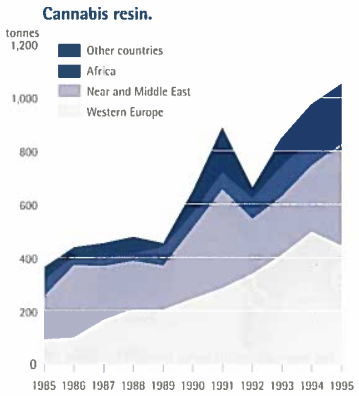
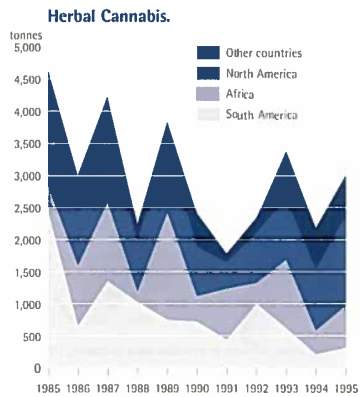


Fig. 7: Drug seizures by region, 1985 – 1995.







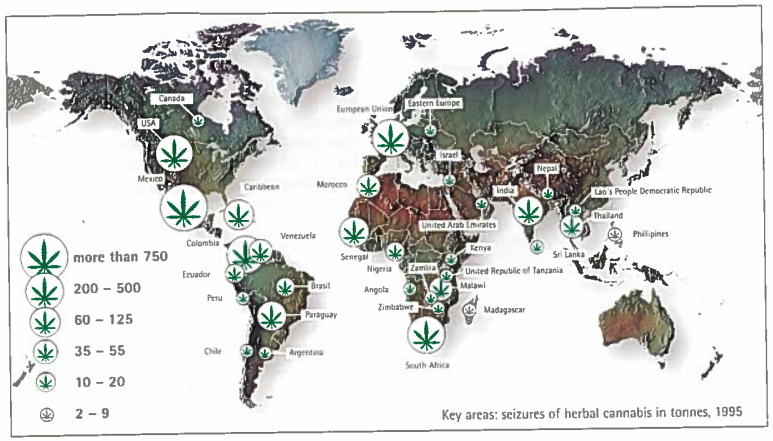


Worldwide trafficking patterns vary widely according to the type of drug. Fig. 8 – 11 illustrate the geographic reach of illicit drug trafficking for various drugs. What these figures do not capture is the relationship between the different regions in the global drug trafficking network. In this regard, Fig. 12 - 13 provide useful insight. Some trafficking routes are complex, involving many different transit countries, forms of transport and concealment.

The complexity of the routes reflects not only climatic constraints but also criminal efforts to evade law enforcement authorities. Heroin is manufactured primarily in the opium-producing regions before export to other continents. Within the Golden Crescent and Golden Triangle opium is trafficked to clandestine manufacturing sites located where the risks of detection are perceived to be low. This reduces the risks and costs of trafficking, since heroin is of higher value per unit weight than opium. Using various routes which traverse Europe and Asia and the Atlantic and Pacific Oceans, criminal groups operating in South-West Asia supply the bulk of the European heroin market, while those operating out of South-East Asia supply the market in North America. Global seizures of opium are believed to account for a mere 10 – 15% of the total destined for the production of heroin.

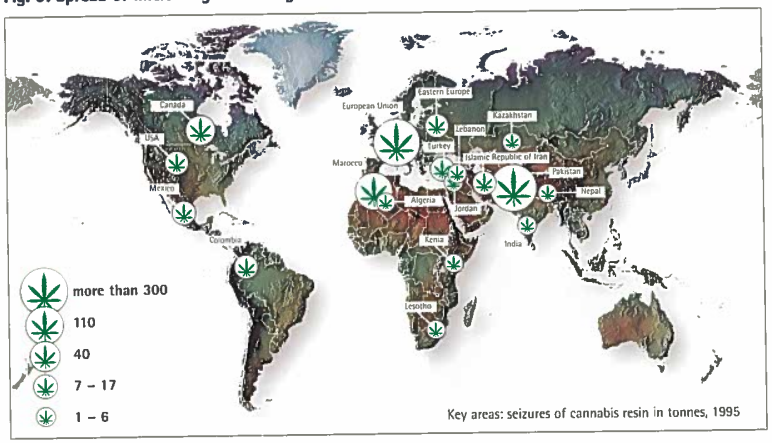
The growth in international trade and transportation – while a welcome development that augurs well for livelihood of the global market – have also made the interdiction of illicit drugs difficult. Free trade agreements in different parts of the world, designed to increase trade and reduce border regulation, are also likely to have inadvertently provided opportunities for illicit drug trafficking. As it is not desirable to turn back the tide of free trade, it will be increasingly important to increase efforts to reconcile two seemingly contradictory aims, namely, trade liberalization and the effective control of illicit drug traffic. Only the ATS seem to fall outside this clash, for the global availability of the necessary precursors allows production and consumption to take place in close proximity to one another, pre-empting the need for long trafficking distances.

Fig. 8: Spread of illicit drug trafficking worldwide, herbal cannabis 1995.



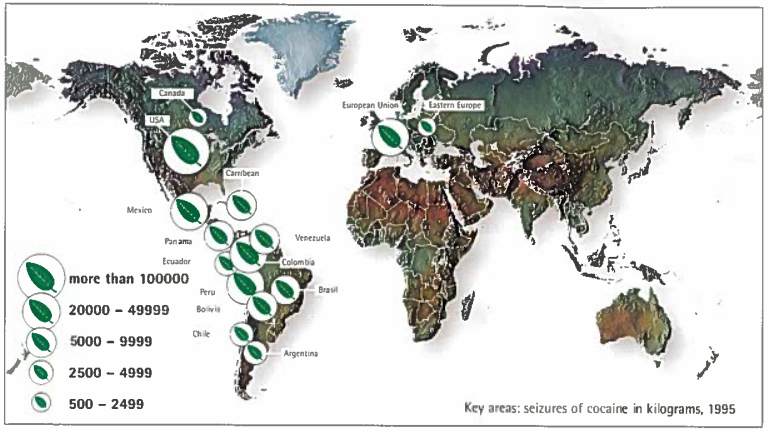
Note: The boundaries shown on this map do not imply official endorsement or acceptance by the UN.

Fig. 9: Spread of illicit drug trafficking worldwide, cannabis resin 1995.



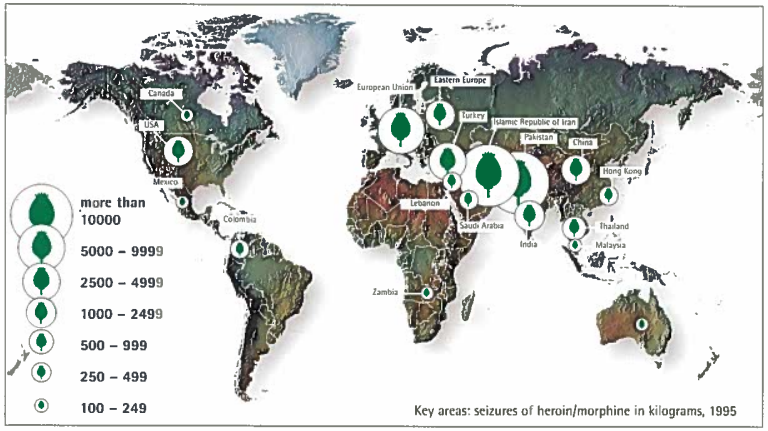
Note: The boundaries shown on this map do not imply official endorsement or acceptance by the UN.

Fig. 10: Spread of illicit drug trafficking worldwide, cocaine 1995.



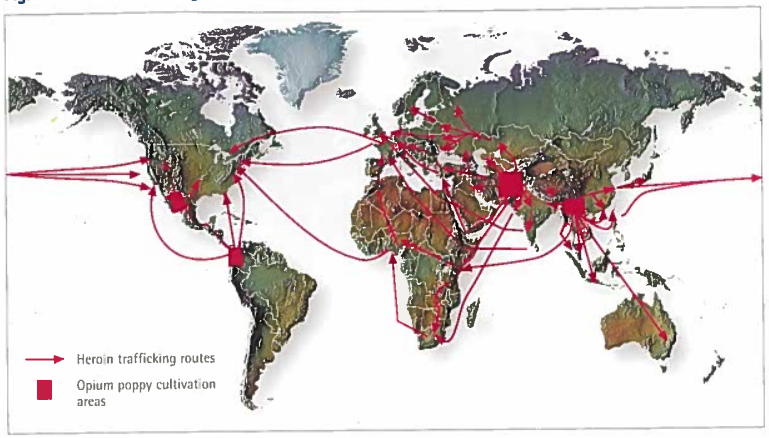
Note: The boundaries shown on this map do not imply official endorsement or acceptance by the UN.

Fig. 11: Spread of illicit drug trafficking worldwide, heroin/morphine 1995.



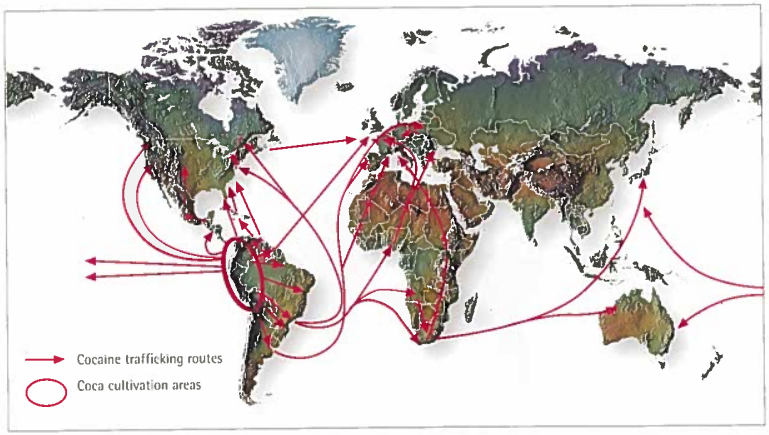
Note: The boundaries shown on this map do not imply official endorsement or acceptance by the UN.

Fig. 12: Heroin trafficking routes.



Note: The boundaries shown on this map do not imply official endorsement or acceptance by the UN.

Fig. 13: Cocaine trafficking routes.



Note: The boundaries shown on this map do not imply official endorsement or acceptance by the UN.

1.5. SEIZURES OF PRECURSORS

Precursors are essential chemicals used in the production of drugs. Frequently all chemicals used in the process are referred to as precursors, though this is not completely correct. Mainly diverted from licit channels,[6] precursors are necessary for the manufacture of most drugs. The majority may be substituted with other substances, albeit at a higher cost. Precursors are trafficked as widely as the illicit drugs themselves. Diversions from licit exports are often routed through third countries to disguise the final destinations. The use of specialized brokers and the exploitation of free trade zones is common in this regard.[7] In general, the diversion of precursors takes place in countries where licit production is high and/or control systems are deficient.

The bulk of chemical substances seized globally are intended for the clandestine manufacture of cocaine. During 1990 – 1994, three-quarters of global precursor seizures took place in Colombia. In 1990 – 1994, around four billion 'potential dosage units' of precursors – or the amount of precursors needed to produce as many – were seized annually. The most significant trend in the 1990 – 1994 period was the growth in ephedrine seizures which ran parallel to the massive growth in the consumption of methamphetamine. In this period the seizure of ephedrine grew from 13% of global precursor seizures to 46%.

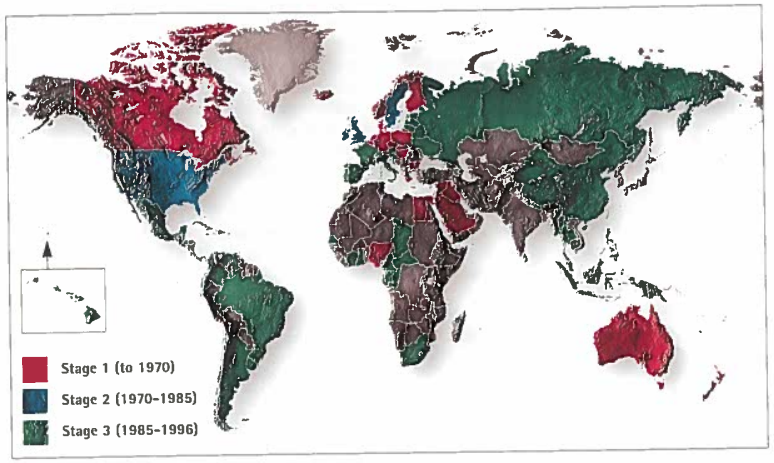
1.6. DEMAND FOR ILLICIT DRUGS

In recent years, illicit drug consumption has increased throughout the world. Various indicators – emergency room visits, substance abuse related mortality cases, arrests of drug abusers, number of countries reporting rising consumption levels – make clear that consumption has become a truly global phenomenon. Of the plant-based drugs, the illicit consumption of cannabis products – marijuana and hashish – is most widespread. Less prevalent, but

Fig. 14: Illicit use of ATS.

Note: The boundaries shown on this map do not imply official endorsement or acceptance by the UN.

Fig. 15: Illicit use of ATS.



Note: The boundaries shown on this map do not imply official endorsement or acceptance by the UN.

with far more serious health-related effects, is the abuse of heroin and cocaine. The most rapid rise in abuse in recent years has been that of synthetic drugs, particularly of ATS[a] (see figure 14 - 15).

It should be emphasized that authorities in many countries still have only a vague conception of the extent of local drug abuse. In many cases, there are few, if any quantitative estimates available. Though in a growing number of countries, studies on the extent of abuse have been undertaken in recent years, only a few countries have what could be considered scientifically valid studies that are internationally comparable. As research in several countries has shown, there are significant differences between 'life-time', 'annual' and 'daily' abuse prevalence rates, as well as among the prevalence rates of the various socio-economic sub-groups and the general population.[8]

a) At this level of generalization, the above mentioned trends can be stated with a high degree of confidence. Far more difficult, if not impossible, is to put precise figures to the actual extent of abuse of illicit drugs at the global level. Authorities in several countries still have only vague ideas of the likely extent of drug abuse. This is due to a number of reasons. In many cases, there are no quantitative estimates available. Under such circumstances, national authorities frequently base their 'perceptions' of the drug abuse situation on reported drug seizures, which do not necessarily correspond to the actual drug abuse situation. The information is then translated into 'qualitative statements' on abuse: 'wide-spread'/'not widespread'. Obviously such transformation processes are influenced by anecdotal evidence. If quantitative estimates are provided, they are frequently based on using qualitative judgements to extrapolate trends from the existing data. For example in some countries drug registers are kept. In these cases the total estimated number of drug abusers can be calculated by multiplying the number of registered drug users by some factor. Such a factor, however, is very rarely subjected to any process of scientific validation. Frequently factors ranging from four to twelve are applied; although in some cases the factor of one is used, which would suggest that all drug abusers in a country are registered, which would never be the case. Other techniques which apply qualitative weightings to existing data are based on: the number of people arrested for drug abuse, the number of people with a drug problem found in emergency rooms and treatment centers, or the number of substance abuse related mortality cases. For instance, it is frequently – and probably correctly – estimated that the number of people dying from heroin abuse, for instance, represent 1% – 3% of the hard-core heroin abusing population.

In a growing number of countries, studies on the extent of abuse have been undertaken in recent years. Only a few countries have scientifically valid studies at the national level which would be directly comparable at the international level. Studies undertaken often differ with respect to the target groups investigated (age-groups, professional and other social groups – students, prisoners, people in treatment centers, ethnic groups and geographical area – studies in specific urban or rural settings etc.). The definition of drugs investigated also qualifies a study. One of the problematic areas of drug data is the delineation of drug-taking habits as defined by the frequency of drug taking. This frequency is generally referred to as prevalence. Consumption at least once in a 'life-time' is called life time prevalence, at least once within the past twelve months is 'annual prevalence'; at least once within the last

Although the accuracy of individual estimates may be limited, it is possible to state with confidence that regular abuse of drugs at the worldwide level is still uncommon. This is in contrast to the consumption of the main licit psychoactive substances, alcohol and tobacco. While such licit substances are consumed by at least 20%[b] (tobacco) and 50%[c] (alcohol) of the general population, it is certain that less than 10% of the global population illicitly consumes drugs (annual prevalence). Based on unofficial UNDCP estimates, the annual global prevalence rate of illicit drug consumption is likely to be in the range of 3.3% to 4.1% of the total population. The most widely abused drug is cannabis, which is consumed by about 2.5% of the world population. This equals about 140 million people worldwide – a conservative estimate based on information provided by national authorities to UNDCP, WHO, the US Drug Enforcement Agency and the US Department of State.

From a health perspective, it can be argued that the most serious drug of abuse is heroin. In most countries heroin is the leading drug responsible for substance abuse related mortality and emergency room episodes. In terms of geographical spread, heroin is also among the leading substances, with abuse of heroin found in almost all countries. In terms of actual prevalence, abuse and other opiates, however, appears to be relatively small. Statistics suggest that about eight million people - or 0.14% of the global population - take this substance ('annual prevalence'). Abuse of heroin in North, Central and South America as well as in Africa seems to be below average, whereas heroin abuse in Asia, Europe and Oceania is above the global average.

The abuse of cocaine is more widespread in terms of the total number of consumers, though more countries are affected by heroin abuse. Statistics suggest that at least 13 million people (0.23% of the global population) abuse cocaine ('annual prevalence'). Cocaine abuse is still strongly concentrated in the Americas, particularly North America. There, some 1.8% of the total population has experimented with cocaine at least once in the year prior to the survey. Whereas abuse levels in North America have fallen over the last decade and seem to have stabilized, the strongest growth rates are being reported from countries in Europe, South America and Africa.

In recent years, the most pronounced increase in drug abuse has been reported for synthetic drugs. This rise includes the abuse of ATS. Some 30 million people (0.5% of global population), more than heroin and probably more than cocaine, consume ATS worldwide. The most widespread substance of abuse within the ATS is methamphetamine, with high levels reported from North America, as well as from a number of countries in the Far East and South-East Asia regions. In many Asian countries methamphetamine is the most, or second most, abused substance after cannabis. In Europe, the most common ATS is amphetamine, though consumption of the the various ecstasy group substances is rising rapidly, a trend driven in part by their popularity at so-called 'raves' (see Fig. 15). Abuse of methcathinone is spreading in the countries of the former Soviet Union, particularly in the Russian Federation and the countries of Central Asia.

month is 'monthly prevalence' and consumption at a daily rate is referred to as 'daily prevalence.' Casual drug use; frequent drug use, problematic drug use, are all further categories of drug taking habits.

There are significant differences between 'life-time', 'annual' and 'daily' abuse prevalence rates, as well as among the prevalence rates of the various socio-economic subgroups and the general population. Therefore, a simple aggregation of data using a prevalence variable would be highly problematic and misleading. There are, however, some general patterns in all countries which can be generalized to reduce the margin for error. Life-time abuse, for instance, is always rated significantly higher than 'annual prevalence'; because the tendency of abuse levels among the younger generations (15 – 30) is significantly higher than abuse levels in the older population cohorts, or the population at large, this pattern can be generalized. The same applies to the prevalence rates of some special sub-groups (prisoners, attendants of emergency rooms, treatment centers etc.). While the application of 'conversion rates' and statistical weights based on observed results in some other countries cannot be expected to provide accurate results, their use can reduce the margin for error and thus can be relied upon to paint a more accurate picture.

In the case of the figures presented above, the potential error due to conversions was further reduced by choosing annual prevalence as the measure for drug abuse – because a majority of countries report 'annual prevalence rates.' All resulting global figures remain, however, a combination of aggregated (partially standardized) estimates. It goes without saying that any such figure has to be interpreted with caution.

b) This worldwide figure was 1.1 million people in 1990, according to WHO; a similar proportion has also been found in the United States. (1994 Household Survey)

c) Figures for USA; based on 1994 Household Survey.

Table 1. Estimated number of drug abusers (annual prevalence) in the 1990s – WORLD.

	Estimated total (million people)	in % of total population
Heroin and other opiate-type substances*	8.0	0.14%
Cocaine*	13.3	0.23%
Cannabis*	141.2	2.45%
Hallucinogens**	25.5	0.44%
ATS**	30.2	0.52%
Sedative-type substances**	227.4	3.92%

Sources: UNDCP Annual Reports Questionnaires; UNDCP mission reports; UNDCP Country Profiles; UNDCP Country Programme Frameworks; United States Department of State, International Narcotics Control Strategy Reports; UNDCP estimates.

The 1990s have also witnessed the return of hallucinogens, which include substances such as LSD. There seems to be a relatively high level of abuse of sedative-type drugs, though many countries report illicit consumption of sedatives to have stabilized. Sedative type substances refer to barbiturates, benzodiazepines and methaqualone, which is of particular concern in the countries of southern Africa.

1.7. INJECTING DRUG USE AND AIDS

Drug injecting has been identified in more than 100 countries, of which 80 report HIV infection among injecting drug users.[9] The Joint United Nations Programme on HIV/AIDS, UNAIDS, estimates that the global proportion of HIV infections due to contaminated injection equipment was 5 – 10% in 1996.[10]

In many countries faced with serious trafficking or local production problems, the pattern of HIV transmission among injecting-drug users (IDUs) is stark testimony to the so-called 'spill over effect' which happens when portions of illicitly produced or trafficked drugs end up being consumed in the local market. In Thailand for example, opiate consumers made a gradual transition from opium smoking to heroin smoking and finally to heroin injection between the end of the 1950s and the end of the 1970s.[11] HIV rates increased from about 1% at the start of 1988 to 32 – 43% by September 1988,[12] and in Bangkok had stabilized at a high level of 40 – 50%[13] by 1994.[14] The number of AIDS cases among IDUs in Thailand grew from seven in 1990 to 691 cases in 1994.[15] While the country was beset by a host of other problems that stimulated HIV transmission, it is beyond doubt that the injection of heroin played a significant part.

In recent years, there have been hopeful signs of progress toward the development of effective treatment of patients with HIV-AIDS. But in many countries of the world, such progress is unlikely to have an effect in the near term. In these countries, it is more important than ever before to raise awareness of the various transmission routes of the HIV virus, including the injection of heroin with shared needles.

Part 3 examines in further detail the relationship between HIV-AIDS and drug abuse.

* Conservative estimates; results obtained through information from UNDCP's annual reports questionnaires; UNDCP mission reports; UNDCP annual field reports; UNDCP Country Programme Frameworks; data compiled in UNDCP's country profiles; data compiled by WHO; data compiled by the United States Drug Enforcement Agency and the United States Department of State, complemented by UNDCP estimates.

** Estimates obtained through extrapolation of average prevalence rates obtained from a sample of countries (replies to UNDCP's annual reports questionnaire) representing, respectively, 21% (ATS; sedative type substances) and 11% (hallucinogens) of the world population. The application of the same methodology to cannabis (sample of countries representing 27% of global population) and cocaine (sample representing 21% of world population) would increase the total estimate of cannabis users to 180 million and of cocaine consumers to 30 million. Such higher numbers of cannabis consumers – given a frequent bias towards underreporting – is possible, given strong regional differences in the levels of abuse of cocaine, particularly the very low levels in Asia, the estimated total number of cocaine abusers resulting from simple exptrapolation, however, is likely to be too high. While estimates for hallucinogens and ATS are reasonable, the extrapolated estimate for sedative-type substances – given the sample of countries providing figures – is likely to be on the high side.

1.8. DATA ON ILLICIT DRUGS

The United Nations International Drug Control Programme (UNDCP) gathers much of its information on the supply and demand for illicit drugs from its Member States through the UNDCP Annual Report Questionnaire (ARQ). The ARQ is a comprehensive survey designed to provide information on a country's drug problems and the steps taken to address them. Parties to the three international drug control Conventions (1961, 1971 and 1988) are required to submit the questionnaire annually; nevertheless the questionnaire is sent to most countries in the world, and is also submitted by many countries not party to the Conventions.

However, as the consistency, regularity and comprehensiveness of the countries responses to the ARQs vary considerably from year to year, there are significant gaps in the data base. To emphasize the caveat mentioned in the first part of this chapter, the clandestine nature of the activities at hand further complicate a rigorous assessment.

Estimations of global trends in illicit drug use inevitably involve a certain amount of simplification. The closer one looks into these issues, the more apparent is the need to improve data quality.

These constraints vastly complicate efforts to identify global aggregates. Until efforts are increased to improve the gathering and analysis of information on country level trends, our understanding of the complex dynamic of illicit drugs at the global level will be limited. While the country profiles in this report cannot be considered as mirror reflections of the illicit drug phenomenon in the countries selected, they do represent the most accurate assessments possible in these circumstances. The detailed coverage of the eight countries provides a step toward piecing together a more accurate global picture. Given the growing worldwide consensus that more needs to be done to counter drug-related problems, there can be no better place to start than in the area of data collection and analysis.

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Traditional use

BOX 1A

THE COCA LEAF – THE SACRED LEAF OF THE INCAS

"I have often seen a Quechua Indian begin to chew by selecting three perfect leaves, arranging them in the shape of a fan, then blowing on them and whispering prayers to them before putting them in his mouth".[1]

Discoveries in ancient tombs indicate that the coca bush was first cultivated between four and six thousand years ago; *coca*, meaning 'tree', comes from the language of the Aymara Indians. The Incas regarded the plant as a gift from the gods and considered the leaves sacred: they were burned or chewed by nobles in a ceremony of religious worship.[2]

For centuries, the coca leaf was central to the South American Indian culture. Long before the 1860s, when European physicians began to experiment with coca and cocaine for therapeutic purposes, the Indians utilized coca to treat a variety of ailments as diverse as toothache and altitude sickness. It also had a place in the daily diet: the presence of nutrients and vitamins in the leaves may have provided a valuable supplement to the Andean diet in the form of iron and calcium which were scarce in the basic Andean food crops,[3] while the leaves chewed were an aid to digestion.

The plant's stimulant and anorectic properties also served to relieve hunger and thirst, and to ease the burden of manual labour. The Indians often chewed coca before starting out on a physically arduous day's work.[4] In Bolivia and Peru, the native habit of chewing coca leaf during the working day and as a dietary supplement continued during the colonial period, when it was actively encouraged by the *conquistadores*. Having learned of the stimulant properties from the Indians themselves, the Spaniards maintained a regular supply of coca leaves for the natives, whom they forced to work for long hours in gold and silver mines.

Coca also played an integral role in ritual and celebratory activities to recreate collective myths and revive historical memory.[5] It was shared and enjoyed at virtually all major gatherings and celebrations such as births, weddings, funerals, dedications of new dwellings, drawings up of contracts, healing ceremonies and magic rites.

Peyotl

Peyotl is a cactus plant of divine origin, according to Indian legends. The word "peyotl" is said to derive from various words meaning "to stir" or "to stimulate" and is of Aztec derivation, although a variety of other names were used by individual tribes. It grows wild in several Mexican states as well as in the southern part of Texas. The top of the growing peyotl cactus is lopped off into slices leaving the remainder still rooted in the ground. These slices, known as mescal buttons, are then left in the sun to dry until they are ready for use.

Individual and collective use of peyotl has been noted in Mexico since the 17th century. Its earliest application was in traditional medicine, of which certain practices continue today. Several Indian tribes are convinced of its mystical virtue and use it as a remedy, believing that "sickness has no physical cause, but is a manifestation of the wrath or malignity of the spirits or the divinity".[6] Peyotl is used in several ways, depending on the ailment: slices are soaked in alcohol and then used for massage in cases of rheumatism or to counteract the effects of a snake-bite; it is boiled down and the essence extracted as a cure for headaches, haemorrhages and fevers, and even for tuberculosis. In general, peyotl is described as a tonic, a sedative, a remedy against breathing disorders and a diuretic.[7] Apart from its medicinal function, it is used to alleviate hunger and fatigue, or sometimes simply as an intoxicant.

Peyotl was used as an accessory in certain tribal rites which gradually became formalized, resulting in the establishment of religious sects, and it continues to play a prominent and officially recognized role in the religion of the Native American Church. Peyotl tea and mescal buttons are ingested to reach a state of trance favourable for prophetic visions in ritual dances, during tribal gatherings; they also have a symbolic function in feasts and ceremonies. The Indians believe that the drug protects them against accidents and consequently use it as an amulet. Rites and beliefs vary from tribe to tribe, but the essential features of this cult may be summed up in a few principles: (a) there is a great spirit who has created the universe and controls the destinies of everything in it, including man; the great spirit has placed part of his supernatural power (*mana*) in peyotl, which he has given to the Indians to help them in their precarious situation; (b) by eating the peyotl under prescribed ritual conditions, the believer absorbs part of the power of the great spirit; (c) the power absorbed with the peyotl has spiritual effects.[8]

Cannabis and Opium

For over ten centuries Asian medicine has included opium and cannabis as therapeutic agents in the treatment of a wide variety of ailments.[9] Mothers administered opium to young children to help them sleep and during the teething period.[10] Whether smoked, eaten or consumed in liquid form, opium was used as a remedy for general aches and pains, a tranquillizer in times of stress, bereavement and anxiety and a sedative during periods of insomnia. Warriors looked to opium to enhance their strength and vigour, and as a painkiller for battle wounds; off the battlefield, they believed it increased their sexual potency. In Thailand, cannabis and opium became absorbed into the medicinal, ritual and social customs of the hill tribes more recently – in the course of the last hundred years. Like the South American Indians, they had little or no knowledge of medical germ theory and believed that sickness and poor health were induced by spirits and gods. Village communities developed a wide variety of sacrificial rites and social customs which were passed down by word of mouth.[11]

In the Indian subcontinent, legends and traditions associated cannabis and opium with religious cults, in particular as an aid to meditation and concentration. In some parts of India, *bhang* – cannabis leaves prepared in the form of syrup – was consumed on many religious festive occasions",[12] an act described by some as one of religious obligation. Socially, opium played an important role in creating and cementing friendships. When food and drink were scarce, the sharing of opium was seen as a mark of friendship. The upper-caste Indian custom of holding an "opium-drinking gathering" (*dayara*) was also a way in which the host could affirm his social standing – the vessel in which the opium liquid was served would reflect his economic position. Refusal to partake in the opium drinking ritual was considered impolite.[13]

Cannabis or *ganja* was also seen as a sign of prestige and featured prominiently in Indian celebrations. In southern India it was customary to distribute *ganja* to guests at wedding ceremonies, not to offer being considered disrespectful.[14] African tribes also made considerable use of cannabis – in Tanzania the drug found its way into the diet of the Southern Highlands where cannabis leaves and seeds were used as a spice in the preparation of a vegetable delicacy.[15] Traditional healers in Tanzania have also been known to use an extract from the cannabis plant for the treatment of earache.[16]

Khat and Betel[a]

Khat is an evergreen shrub or small tree which is native to East Africa and the southern part of the Arabian peninsula, where use is particularly widespread. Young shoots of the plant are harvested all year round and sold in local markets. The most common form of consumption is similar to that of coca – the fresh leaves are chewed and then retained in a ball in the cheek. The dried leaves and twigs of the shrub can be crushed for tea or made into a chewable paste.[17] In some areas of the Middle East, the leaves and ends of the twigs are crushed and smoked like tobacco. The stimulant properties of *khat* have been valued for centuries for social and medicinal purposes. Consumption can produce a temporary sense of euphoria and exuberance, suppress the appetite and the sense of fatigue. It is used to alleviate hunger and weariness by labourers and as an appetite suppressant during periods of religious fasting. Students and night workers use the drug to help them stay awake.

a) Not under international control.

Until recently, *khat* chewing was perceived primarily as a regional phenomemon because the primary active ingredient in the leaves, cathinone, loses its potency as the leaves dry, usually within 48 hours. However, with the aid of air travel and of modern packaging methods, traffickers have begun to distribute fresh *khat* leaves to the streets of European cities.

Betel nuts come from a palm tree of great antiquity and have stimulant properties, used to reduce tension and to produce a sense of well-being. Betel-nut chewing is still widespread throughout Asia, in particular in the islands of the South Pacific, India, Indo-China, southern China, and Taiwan Province.[18] Nearly fourteen hundred years ago the countries of South and South-East Asia were described by a Chinese source as a region of betel users, or the "betel belt".[19] Betel prepared with other plants and spices was used mainly as a stimulant and aphrodisiac. Chewing betel nuts with the leaf of betel tree and lime paste was a habit adopted from childhood onwards; its preparation occupied a central position in the ritual and social life of the people. Betel chewing in Malaysia or Thailand is less common than it once was, although in India the practice remains widespread, and the betel vendor still belongs to the characteristic street picture in Indian cities.

The gradual process of degeneration from socially sanctioned, controlled drug use to socially detrimental drug abuse has occurred gradually, and for a variety of reasons. The opening up of international trading routes in the 16th and 17th centuries brought previously unknown goods to the attention of merchants and their powerful royal patrons, constantly in search of new and valuable goods from which commercial advantages could be won. The botanical species brought back from these journeys also yielded much of interest to scientists, who analysed and experimented with plants that had a proven medicinal value among indigenous peoples. Technologies were developed to refine and concentrate the chemical components of the plants for therapeutic purposes.

Recognition of the immense value of the plant-based drugs and of the need to ensure continuing supplies for medical and scientific purposes, while at the same time preventing diversion to non-medical usage, ushered in the era of international drug control. The United Nations Single Convention on Narcotic Drugs of 1961 (see Part 5.3) took account of the traditional function of the plant-based drugs and granted periods of 15 years (opium) and 25 years (coca and cannabis) during which traditional use was to be phased out.

However, at the same time as the traditional coca and opium poppy cultivation for nutritional and medical purposes began to decline, the growing demand for the refined drugs in the industrialized world encouraged cultivation. Criminal organizations saw the profits to be made from an expanding population of dependent users and offered struggling farmers and under- or unemployed labourers the chance to earn profits beyond what any licitly grown crop could provide, albeit at a fraction of the retail value of the street drug. While demand grew in the developed world, illicit crop growers found themselves caught between state-exercized law enforcement and the arbitrary use of violence and intimidation by powerful trafficking organizations, and by insurgent groups who found drugs a convenient means for financing their struggle.

As international consensus for action to curb illicit production and trafficking has been extended, the operating space for illicit manufacture has been reduced. Whereas once coca and opium were transported to other regions for processing and refinement, now these tend to occur in locations close to the growing zones where state control is miminal. At the same time, in response to a range of cultural and economic pressures, the functional use of drugs in these source countries has gradually moved from therapeutic, ritual and religious uses to consumption as an end in itself, such that patterns of abuse in developing countries have begun to converge with those in the industrialized world. Members of poppy-growing hill tribes in South-East Asia are now injecting heroin; cocaine injecting is spreading in South America. Sadly, the distinction between traditional use and modern abuse has all but disappeared.

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Stimulant abuse: From amphetamine to ecstasy[1]

BOX 1B

Dr Barbara Remberg

National and international drug control efforts have traditionally been dominated by the plant-based drugs cocaine, heroin and cannabis, due to their long history of use. In contrast, synthetic drugs are a product of the developing pharmaceutical industry and are a phenomenon of the 20th century. The adverse effects of many of these drugs have only recently come to light in the course of their widespread therapeutic use, and as a consequence of improved knowledge of chemistry and pharmacology. These discoveries have brought about changes in medical prescribing practices and have forced the pharmaceutical industry to come up with new and better drugs. However, recognition of the dependence-producing properties, and of the harmful consequences that could derive from the abuse of some synthetic drugs, has been delayed by the focus on the three 'classical' drugs mentioned above.

The challenge of synthetic stimulants is an urgent one, both now and for the future. In the course of the 1990s, the growth rates of illicit production and trafficking have surpassed those of cocaine and of heroin while consumption is outstripping that of the traditional drugs in an increasing number of countries. If present trends continue, the problem of synthetic stimulant abuse could become a global one, with a rapid expansion into both the industrialized and the developing world.

Throughout history, stimulants have been used to satisfy the individual's desire to enhance vitality and performance, to improve mood and induce a feeling of well-being, or to escape reality for religious or merely recreational purposes. Many plants containing ingredients with stimulant effects - such as caffeine, cocaine or ephedrine - are available in different parts of the world where traditional use in social functions and ceremonies persists. The kind of mild dependence these psychoactive plants produce does usually not interfere with, and may even enhance the efficiency of the user, although negative health implications cannot be disregarded – *khat* and coca chewing, for example, increase the physical endurance of workers, often at high altitudes and without adequate diet. The use of mild stimulants like coffee and tea – aimed at improving mental performance – has generally been accepted, and is rarely considered to be a problem of abuse; the same psychoactive properties which constitute the beneficial aspects of stimulant drugs are the very same as those which create their potential for harmful use.

As a result of the growing body of knowledge in medicine and natural sciences, and closely linked to the development of the pharmaceutical industry, the nineteenth century was characterized by the refinement of natural products by extraction/isolation of the active ingredients – for example, caffeine and ephedrine, or cocaine from coca leaves (1859), for medical purposes (e.g., cocaine as local anaesthetic). While this was clearly a major advancement over using multi-ingredient natural mixtures, the availability of the pure substances was still largely dependent on the availability of the raw material. The therapeutic use of fully synthetic drugs – substances which have no counterpart in nature and which can be produced in unlimited amounts from readily available chemicals – is a twentieth century development. Many of these substances were designed as structural modifications of naturally occurring drugs with similar, yet more specific and/or enhanced therapeutic effects.

The progress in technology, which permitted the use of refined natural products or of purely synthetic substances, marked not only a milestone in medicine, but also a new era of abuse of psychoactive drugs. This abuse is characterized firstly by the use of highly potent, pure substances instead of the plant material which contains the active ingredient together with other compounds and, secondly, by a gradual shift from an instrumental to a recreational use. In the early phase of the refinement of natural products, widespread abuse was hindered by the great distances between production areas and consumers. The use of purely synthetic substances also widened, from the use of pharmaceutical products as a means to an end – for medication or to improve occupational performance – to use as an end in itself, aimed uniquely at experiencing the pharmacological effects of the drug. The logical next step has been the appearance on the illicit market of many new drugs without any therapeutic use which are exclusively designed for mind-altering purposes.

Today's problem of drug abuse is increasingly shifting from plant-based drugs like cocaine, heroin and cannabis to synthetic drugs. Within the broader category of synthetic substances, the group of stimulants which share the basic chemical structure of amphetamine (hereafter referred to as synthetic stimulants or amphetamine-type stimulants, (ATS)), is probably the best example, or model case, for the problems associated with synthetic drugs, their control implications, and especially for the gradual shift from licit manufacture and use to illicit synthesis and abuse.

Within the group of synthetic stimulants, at least two sub-groups of substances with slightly different pharmacological effects can be distinguished – the amphetamine group and the ecstasy group. Most of the former were initially developed and used as therapeutics. Amphetamine, for example, was first prepared in 1887; methamphetamine in 1919. Yet it was not before the 1930s that their therapeutic value was recognized, with their subsequent introduction into pharmaceutical markets. The initial overrating of their therapeutic usefulness – accompanied by a general enthusiasm for these substances, which was reflected in early newspaper headlines proclaiming amphetamines to be new medicines that "inspire the fighting spirit in daily life", and that act "as leisure and holiday" – has clearly contributed to their rapid spread as 'vacation tablets' among the general population and to widespread, professionally sanctioned use for an enormous variety of medical conditions. Study of the effects of long-term consumption across massive sectors of the population has led to a gradual reassessment both of their positive therapeutic value and of their potential risks. Today, the use of synthetic stimulants is largely restricted to three therapeutic indications, each of which is disputed within medical circles – narcolepsy (sudden attacks of day-time sleep), obesity ('slimming pills') and, paradoxically, the treatment of hyperactive children (Attention Deficit Disorder, ADD). In 1996, it was claimed that stimulants to treat ADD were being prescribed to some 3 – 5% of all American children.

The substance popularly known as ecstasy (MDMA), which has since given name to a whole group of related substances, was synthesized and patented in 1914, but had never been marketed. After its re-discovery in the USA in the late 1970s, its capacity to create empathy and facilitate interpersonal communication were put to use in psychiatry. Not till the mid-1980s, when MDMA became popular in the USA among the general population, and later as part of the 'rave' scene in Europe, Australia and elsewhere, did its potentially dangerous impact become evident. The placement of MDMA under the most stringent international control regime (Schedule I, 1971 Convention) in 1986 severely curtailed its experimental use in psychotherapy.

The attractiveness of synthetic stimulants to the consumer is directly attributed to their action on the central nervous system (CNS). The effects produced by the amphetamine group are a feeling of well-being and energy, increased alertness and concentration and a marked reduction in the need for sleep and food ('slimming pills'). The most sought-after effects of the ecstasy group are empathy, a feeling of serenity/calmness, the enhancement of performance, of communication and of sensual experiences, together with a mild euphoric 'rush'. Undesirable side-effects of both groups include increased breathing and heart rate, a rise in blood pressure, sweating, dry mouth and diarrhoea.

In response to the pleasurable effects, psychological dependence may soon develop (particularly of the amphetamine group) and the need to take the drug amounts to a craving or compulsion. In addition, abuse of these substances can seriously affect the mental state of the consumer. The fading of the initial euphoria, giving way to undesirable experiences of anxiety and suspiciousness or even to amphetamine-psychosis, may result in aggressive and violent behaviour, including suicide and homicide. However, deaths directly related to the abuse of these synthetic stimulants are rather rare. Even those fatalities which are reported in the context of ecstasy use are generally consequences both of the drug's effects on the thermoregulation centre in the brain, and of environmental factors like over-heated rooms and insufficient liquid intake. There is justifiable concern that with clandestine manufacture of these substances spreading, and entirely new derivatives ('designer drugs') with unknown pharmacological activity profiles appearing in the illicit market, the severity of adverse reactions to synthetic impurities or to the new drugs themselves may increase considerably. In the absence of any clinical testing of these new substances, users are passively offering themselves up as pharmacological guinea pigs.

Of the secondary effects associated with amphetamine abuse, the predisposition to AIDS by injecting users is clearly the most serious. Moreover, the more rapidly experienced effects of the drug associated with injection or smoking make it far more addictive than oral ingestion, inhalation, or sniffing/snorting.

Many of the basic pharmacological properties are similar for amphetamines and cocaine, the other stimulant available on the illicit market. It is well known, for example, that even experienced drug users are not able to distinguish the immediate subjective effects of cocaine from those of synthetic stimulants. Yet there are differences, the most important being the duration of the effects – while the cocaine euphoria fades after a few minutes, the desirable effects of synthetic stimulants persist for several hours. In addition, and apparently unlike cocaine,[2] tolerance develops, especially to the stimulant/mood-elevating effects of amphetamines. The ever-increasing doses required to achieve the same pleasurable effects result in an accumulation and aggravation of the negative reactions. Another difference lies in users' perceptions of the risks involved – with cocaine and synthetic stimulants (particularly amphetamine and methamphetamine) potentially competing for the same consumer population, the relatively 'benign' image of the latter may contribute to cocaine being increasingly substituted by them.

Patterns of abuse show differences between the two groups of synthetic stimulants: substances of the amphetamine group are either used occupationally in order to enhance manual or mental performance, or compulsively in typical binges ('runs') lasting several days with intermittent drug-free days, i.e., a period of extreme tiredness and sleep. By contrast, substances of the ecstasy group, which have come to embody a fashionable lifestyle, and which are a major part of the 'rave scene', are thus almost exclusively used recreationally.

The dosage of pure drug that is required to produce the desirable effects is difficult to assess since it depends not only on the route of administration, but also on environmental and individual factors such as the circumstances of the drug use, the mental state, the personality, and the past drug experience of the abuser, i.e., the degree of tolerance that has already developed – while five to 10 mg of pure drug constitute an initial low daily oral dose of substances of the amphetamine group, heavy users might consume up to 250 mg a day. By contrast, ecstasy group substances are only effective at single dose levels of 75 to 100 mg pure drug.

The historical relationship of licit to illicit use of many of the amphetamines is similar and is probably the best illustration of the gradual shift between the two – the sources of supply of these substances for illicit demand have changed, just as their therapeutic significance, their actual use, and the extent of control measures imposed have developed.

In this 'model' of evolution at least three phases can be distinguished :

(i) **Oversupply from licit sources** of pharmaceutical products containing these substances, resulting from the enthusiasm about their therapeutic value – initial over-prescription was later followed by large-scale diversion, thefts from pharmacies (of the drugs themselves or of prescription pads), and/or prescription forgeries.

(ii) **Clandestine synthesis ('reproduction')** of the traditional pharmaceutical products, as of the late 1960s, subsequent to a change in the perception of their therapeutic usefulness, to control measures being introduced and to a decrease in licit availability.

(iii) **Clandestine synthesis ('innovation')** of new derivatives with similar pharmacological effects which have never been marketed as medicines, and to which the control measures of the traditional amphetamine-type stimulants usually do not apply ('designer drugs').

The first shift in the licit oversupply/diversion> clandestine reproduction>clandestine innovation 'model' from (i) to (ii) occurred in the 1960s in the USA and Europe, where (iii) is currently well under way. Diversion from licit sources is the major source of supply in Africa and is starting in Latin America, with signs of a shift to the second phase in some countries. The expansion of clandestine reproduction and a possible shift to clandestine innovation may be occurring in a number of Asian countries.

The third phase of clandestine innovation is very similar to the innovation process in the pharmaceutical industry, but with diametrically opposed intentions – while research in the licit industry is directed at creating new drugs with an increased benefit-to-risk ratio, including a smaller abuse potential, 'innovation' in clandestine laboratories is aimed at designing new, not yet controlled, and above all, more potent drugs, to circumvent existing laws. As a result of this ongoing 'innovative' trend on the illicit market, an ever-increasing number of amphetamine-type end-products – particularly of the ecstasy group – have been created in clandestine laboratories in different countries over the last decades.

While most other synthetic drugs of abuse have only ever had one major source of supply for the illicit market, licit *or* illicit, the amphetamines as a group can have both, that is, a **double supply system** – licit oversupply/diversion on the one hand, and illicit synthesis on the other. This situation particularly complicates control of the substances. Frequently abused synthetic drugs where illicit demand is met by diversion from licit sources are the sedative-hypnotics and the tranquillizers (in chemical terminology, mainly barbiturates and benzodiazepines), while clandestine synthesis dominates the supply of LSD, PCP and fentanyls, a group of highly potent synthetic opiates.

The independence of clandestine manufacture of synthetic drugs from natural sources has a number of 'advantages' and implications when compared to plant-based drugs such as cocaine – illicit production is possible anywhere, therefore close to the ultimate consumer; and trafficking routes may be kept short, and the risk of discovery is significantly reduced. As a consequence, trafficking of amphetamines is largely confined to the country level or to movements within geographical regions. Intra-regional trafficking is only known for methamphetamine into the USA, Japan and other East Asian countries, and for amphetamine and ecstasy group substances within Europe, particularly into the UK, Germany and Sweden.

The principal factors which determine the production of a specific substance and the choice of location for production within a region are (a) the existence of a consumer market (demand); (b) the availability of precursors; and (c) degree of control measures imposed both on the starting material (precursors) and on the end-product. Another factor contributing to the potential spread of synthetic stimulants is the high profit margin yielded by clandestine manufacture – after deducting the initial investment for setting up the illicit laboratory and for precursors, the profit of illicit methamphetamine manufacture, for example, is, at US$30,000 per kilogram, at least twice as high as for illicit crack cocaine production.

Apart from the high profit margin, there is a variety of 'advantages', mostly chemical and pharmacological ones, which make synthetic stimulants particularly attractive for clandestine operators,

such as: (i) the number and simplicity of synthetic routes to manufacture one end-product; (ii) the easy access to a variety of potential starting materials, including natural products, that can easily substitute for one another in the manufacture of a single end-product; (iii) the substitutive nature of the end-products which, despite individual differences, provide very similar pharmacological effects; and (iv) the suitability as starting material of one precursor for a variety of end-products. In addition, compared to heroin and cocaine laboratories, which have to be of a certain size, the scale of production of clandestine manufacture of synthetic stimulants is much more flexible – while small-scale 'kitchen' laboratories closely linked to the consumer constitute one end of the scale, a highly sophisticated 'clandestine industry' constitutes the other. The option of producing amphetamine-type stimulants in the 'kitchen' 'at home', indirectly contributes to the spread of these substances, which may also be encouraged by the recent trend in many countries towards decriminalization of the possession of 'small quantities' of illicit drugs for personal use. Moreover, the overall goal of precursor control is undermined by the likelihood that the relatively small quantities of precursors required for 'home-made' production will fall below the threshold limits beyond which monitoring and record keeping are required.

Nonetheless, large-scale production and distribution of synthetic stimulants are rising. This is a result of the financial gains associated with their clandestine manufacture and of the ease of production, and is closely linked to the growing involvement of highly organized criminal groups at almost every stage, from illicit trade in precursor substances to the street distribution of the final product. While various national outlaw motorcycle gangs, and organized crime groups such as the Yakuza/Boryokudan in Japan, have long been associated with illicit production and distribution of amphetamines in individual countries, a particularly disturbing development is the growing internationalization of the phenomenon – the US illicit methamphetamine market, for example, is increasingly dominated by Mexican suppliers that manufacture the drug in both the USA and Mexico. In the late 1980s Poland joined the Netherlands as Europe's most important amphetamine supplier, while the Netherlands is also one of Europe's most prominent source countries for the ecstasy group of substances.

The abuse of synthetic stimulants typically occurs in waves lasting several years. Many of these cycles show the following similarities: (i) a frequent coincidence of large-scale abuse with periods of intense social change, e.g., in the aftermath of the Second World War; (ii) a spread from the cultural elites and occupational groups, such as soldiers (to whom stimulants were distributed as part of military strategy, e.g., in the Second World War, but also in a number of later military conflicts, such as the Iran/Iraq war, and possibly in the civil war in Liberia), long-distance truck drivers, students, night-workers, and also athletes (doping) to groups of a lower economic status; (iii) the association between the progression of synthetic stimulant abuse within an epidemic cycle and a shift of the preferred route of administration from oral ingestion to intravenous injection; (iv) the high prevalence among younger age groups (the majority of users of the ecstasy group, for example, are less than 20 years old) and in the urban population; (v) the concentration, for example in the USA, among whites, Hispanics and the indigenous population of Hawaii, while the share among the Afro-American population is comparatively low; as well as (vi) the relatively high proportion of female abusers (about 60% of the male share) when compared to other drugs of abuse (40% and 50% for cocaine and heroin). The latter is, however, probably a consequence of the attractiveness of the appetite-suppressing properties of amphetamine-type drugs ('slimming pills'), especially to women.

CONCLUSIONS

(i) Given that the proliferation of illicit manufacture of synthetic stimulants has been clearly correlated with technological innovation in the past, there is potential for a spread of clandestine laboratories into developing countries;

(ii) The 'modern' image that synthetic stimulants carry (because of their synthetic manufacture) compared to the traditional stimulant plants like cola nuts or betel nuts, may well contribute, on a tide of modernization, to an increasing popularity of the former in countries where the traditional plants are consumed;

(iii) The 'benign' image of synthetic stimulants when compared to cocaine, together with the image of the ecstasy group as being linked to a fashionable life-style, are probably the key variables for their widespread abuse in industrialized countries. The widespread availability of synthesis 'recipes', on the Internet, for example, may also contribute to the spread of abuse.

(iv) The availability of starting materials is of major importance for the evolution and progression/spread of synthetic stimulant abuse. In addition, the vast pool of easily available and cheap starting materials, together with an almost safe prediction of some kind of CNS activity of structurally related end-products that may, therefore, easily substitute for each other, has contributed to clandestine operators staying ahead of many control measures. This is particularly the case when control, at national and international level, applies to individual substances rather than to families/groups of structurally related substances; and

(v) The delay in the coming into force of an international control mechanism for synthetic pharmaceuticals (1971 Convention on Psychotropic Substances) was a consequence of the central policy dilemma at that time of striking a delicate balance between the prevention of social and personal harm arising from misuse of these substances and ensuring their availability for medical purposes. Today, the majority of synthetic drugs on the illicit market are manufactured clandestinely and exclusively for non-medical purposes and thus without therapeutic relevance. Consequently, unless serious attempts are made to tackle the causes of, and to reduce the demand for, these drugs, existing drug-control systems cannot be effective.

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Part 2:

Theories and interpretations of illicit drug use

INTRODUCTION

Any attempt to answer the question 'why do people take drugs?' is a hazardous undertaking, especially in a report as culturally and geographically wide-ranging as this one. Psychoactive substances have been used since antiquity within well-defined and socially integrated practices of medicine, religion and ceremony. (See Part 1 Box 1A). These traditional patterns have largely broken down in the course of the last century and, stimulated by profit-seeking criminal organizations, have been replaced by unassimilated, culturally degenerate forms of use. The contribution made by geopolitical change, conflict and economic transformation to the 'late twentieth century malaise' was briefly described in Part 1. Powerful though such influences have been, most people nonetheless manage to cope with economic and personal hardship, boredom and depression without recourse to illicit drugs. The question is therefore, not just *why* certain groups or individuals are drawn into illicit drug use, but why other, apparently similar individuals or groups, *are not.*

The problems of analysis are inevitably hampered by the concealment and reticence which characterize an illicit activity. Such understanding as we have has been acquired slowly and gradually over decades by researchers from a broad range of disciplines in different parts of the world using a mix of interview, confidential questionnaire and peer-conducted surveys, each of which has contributed a valuable, but partial piece to the mosaic.

Theories put forward for illicit drug use are found in widely diverse disciplines from genetics through neurobiology to Freudian psychoanalysis and Marxism. Reality may be more banal.

What follows is a synthesis – rather than an evaluation – of some of the principal studies in illicit drug use aetiology. These include theories centred on the personal or individual factors which may predispose an individual to experiment with psychoactive drugs, and broader explanations based on the immediate environment of family, friends and social influences, particularly during the vulnerable period of adolescence when risk-taking and sensation-seeking may be important impulses. For some, cultural and socio-economic factors are the keys to understanding the conditions under which illicit drug use is more likely to occur, while for others the influence of formal and informal social controls offers the most useful framework for analysis.

Although the variety of pertinent questions and of possible responses excludes any single explanation, presenting the results of work carried out by prominent researchers may be helpful. Only with improved awareness of this fundamental aspect of the drug problem can proactive drug policies and programmes be developed that might help to protect the most vulnerable. Those who study psychoactive drug use are careful to distinguish between *causal* and *correlative* factors that influence consumption and dependence patterns. Evidence is rarely, if ever, presented to substantiate theories that certain factors *cause* drug abuse; instead, the presence of a wide range of variables pertaining to individuals or to certain social groups is a common basis on which certain explanations or 'models' of use have been constructed. These include the *disease model;* the *moral (weakness) model;* and the *social learning* or *behavioural model.* Whereas the first two postulate some form of physiological or psychological dysfunction, the latter tends to base its assumptions on a state of psychological 'normality'. A further distinction must be made between *first* (and possibly only) use; *subsequent* use which may be occasional, regular or recreational; and *problematic, compulsive* or *dependent* use. For example, the reasons for initial experimentation with cannabis smoking may well differ from those that prompt first-time heroin use. The decision to consume drugs illicitly depends on their availability but may be facilitated by contributory *risk factors* which increase the likelihood of use. Other circumstances – *protective factors* – may inhibit or prevent use.[1] Motives for

Socially regulated drug use has degenerated.

"Everything that we do in life, including love, is done in an express train travelling towards death. To smoke opium is to leave the train while it is in motion; it is to be interested in something other than life and death"

(Jean Cocteau, painter and writer)

continuing use will also vary from drug to drug and from user to user. These are sometimes described in terms of *positive reinforcement* – whereby the individual finds the first-time experience rewarding and seeks to reinforce the effect by continuing; and *negative reinforcement*, whereby it is the sense of deprivation or discomfort felt at the lack of the drug which causes the user to continue.

Psychoactive drug consumption is derived from four forms of use: *ritual/cultural* – (discussed in Part 1, Box 1A); *medical/therapeutic; social/recreational;* and *occupational/functional*. The relationship between the different categories and the status of use may fluctuate – consumption of stimulants or of tranquillizers may begin legally with a medical prescription for a precise condition and then be continued illegally with a forged prescription or by buying on the black market. Whether licit or illicit, functional drug use originates with a specific and (in the original intention of the user) temporary purpose but may slide into a continuing and more problematic form of use. This was the case with amphetamine use in many South-East Asian cities at the end of the 1960s and beginning of the 1970s, when stimulants were popular and easily available to students who wished to stay awake for long hours of study; more recently they have been widely abused by long-distance truck drivers, and appear in increasing quantities on the illicit market.[2]

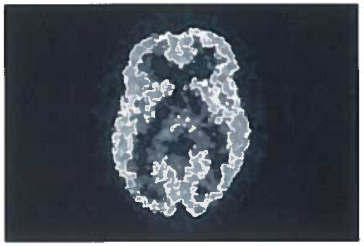
A distinction must be made between **causal** *and* **correlative** *factors.*

Motivations for illicit drug use can be separated according to the source of the predominent influence. These are summarized in three principal categories: **Constitutional/personal factors; Interpersonal factors; Social-environmental and cultural factors.** Those categories may well overlap.

2.1. CONSTITUTIONAL/ PERSONAL FACTORS

Discoveries in neurobiology have shown that the human brain releases substances similar to psychoactive substances: for example, *exogenous* opiates (those produced outside the body) such as heroin correspond to *endogenous* opiates (produced inside the body) known as endorphins. Endogenous receptor systems have been discovered for opiates, stimulants, hallucinogens and cannabis. Research into the anatomic pathways of primary drug reinforcement, or reward – namely how and where addictive drugs act on the brain – has led to speculation over a possible link between drug dependency and genetic predisposition. This theory suggests that in the same way as the diabetic is deficient in insulin, there may exist biological or genetic weaknesses which may be compensated for by the administration of specific psychoactive drugs. Goldstein[3] has noted that the state of *anhedonia* – the inability to experience life's normal pleasures and satisfactions – is one commonly associated with opiate addiction, but was unable to establish whether this was antecedent to or a result of the dependency. Gerra[4] endorses the theory that certain individuals may lack neurotransmitters (chemicals) such as serotonin or dopamine, and sees similarities between psychoactive drug dependency and other forms of compulsive behaviour such as gambling, alcoholism and eating disorders such as anorexia and bulimia.

The impact of heredity is considered to be a possible risk factor that may predispose an individual to problematic drug use. Genetic predisposition



The brain holds some clues to addiction. Photo courtesy of National Institutes of Health, USA, Brain Imaging Section.

does seem to have been proved for alcoholism, such that a child born of alcoholic parentage adopted from birth by a normal family has a much greater chance of becoming an alcoholic than his or her stepbrothers and, conversely, a child of normal parentage raised by alcoholics is much less likely to become alcoholic than his stepbrothers.[5]

Just as physical and psychological drug dependence are now viewed as lying along a continuum, the disease model and moral weakness model – or the relative influence of biological functioning and personality variables – cannot properly be separated. In psychoanalytical terms, the elaboration of drug dependency theories raises questions of an addiction-prone personality and of defective or dysfunctional character formation. It has been argued that because of their rapid action on the brain, psychoactive drugs attract those who seek or need instant reward and gratification; a 'short circuiting of the pleasure-pain principle'. In Freudian terms this 'deficient ego functioning' permits the user to revert to a state of instant infantile gratification and thus to delay or avoid the challenges of a mature adult role. Such a theory allows that dependence in itself can be a character trait in certain individuals who feel the need to be protected from life in general. Other attributes with which drug abuse has been associated include low self-esteem and confidence, low satisfaction, high anxiety, low assertiveness, impulsivity, rebelliousness, low personal control and a tendency towards hypochondria. It should be stressed, however, that the relationship between these attributes and psychoactive drug use is far from clear.

Several researchers have made an association between different types of drug use and the personality or emotional needs of the consumer. This type of theory can be explained in psychoanalytical terms: "... the drug of choice of a user is not arbitrary but dependent on the developmental state to which the user wishes to regress. When an individual finds an agent that chemically facilitates his pre-existing preferential mode of conflict solution it becomes the drug of choice."[6]

Other research suggests that the principal difference between stimulants and narcotics users consists in the more passive qualities of the latter: "Both groups have ego-weaknesses, but the specific drug of choice reflects specific ego needs: persons who respond to stress passively and through avoidance use opiates because their effects reinforce withdrawal, while those who seek to reinforce their ability to confront, compete and accomplish will tend to use stimulants."[7]

O'Connor et al.[8] examined the personalities and drug preferences of 125 recovering drug users, divided according to drug preference, but found no significant distinctions between users, either in psychopathological terms or in non-pathological character traits, although opiate users showed a higher susceptibility to boredom. They concluded that drug research based on psychopathology may be compromised by the social and economic forces which impinge on illicit drug use.

The human brain produces opiates similar to those derived from the opium poppy.

The idea of the heroin addict as someone who is weak, passive and 'can't cope' is firmly rejected in a classic 1969 study of heroin users in New York City by Preble and Casey.[9] The authors conclude that the heroin addict is attempting to escape – not from life, but from the monotony of existence – through an aggressively-pursued career which is "exacting, challenging, adventurous and rewarding".

The particular significance of the heroin user's life is derived less from the actual effects of the drug on body and mind than from the activities involved in "taking care of business" – the daily hustling involved in obtaining supplies of the drug, staying out of the hands of the police and from the "gratification of accomplishing a series of challenging, exciting tasks every day of the week".

Clearly the drug of choice may not necessarily be the drug always used – there are other important variables such as availability and price, and the fact that some individuals use the contrasting effects of one drug to offset the extreme highs or lows of another.

Howard Becker, an influential theorist of social behaviour, rejects the notion of pre-disposing character traits, and sees drug use as a socially learned process by which consumption – in his example, of cannabis – is a function of the individual's conception of the drug and of its social usefulness.[10] From interviews with 50 cannabis smokers Becker concludes that the desirable effects of this substance do not occur spontaneously, but have to be learned and appreciated through group interaction; acquiring the habit is simultaneously learning to be part of a group. The user, he suggests, goes through three stages: first he has to be taught how to get 'high', then how to enjoy the experience, and finally to regulate the habit to maximize the effect and enjoyment.

"The drug of choice is not arbitrary".

2.2. INTERPERSONAL FACTORS: FAMILY, PEERS AND SIGNIFICANT OTHERS

In his book "Outsiders: Studies in the Sociology of Deviance", Becker[11] introduces the concept of 'deviance' as "... publicly labelled wrongdoing ... the failure to obey the rules that society creates ...", but stresses that deviance "... is not a quality of the act committed but a consequence of the application by others of the rules and sanctions to an 'offender'." His concept of the "deviant career" has some of the characteristics of the conventional career, including chance influential factors or "career contingencies". This might determine for example how and when an individual comes into contact with an illicit-drug using circle and which drugs may be available. As the deviant career progresses, a perceptual shift takes place, whereby the individual comes to view the non-deviants as outsiders, and "... comes to regard conventional conceptions of it (cannabis) as the uninformed views of outsiders and replaces those conceptions with the 'inside' view he has acquired through his experience of the drug in the company of other users".

On this basis, behaviour which is illegal, such as cannabis smoking, can be perceived as perfectly normal when it becomes adopted on a regular basis by a specific social group or, alternatively, if it is perceived as being particularly widespread.

Becker's theories have found particular favour with the group of social scientists of the 'rational choice' school, which assumes that individuals rationally select those actions which will maximize their expected utility. The individual who perceives utility in drug-taking activities can be said to have an 'optimistic bias' with regard to his/her actions. This may be the result of misinformation, self-delusion, or the denial or postponement of negative perceptions in the presence of an immediately gratifiying sensory experience.

Powerfully reinforcing effects and denial of negative consequences by the user appear to be particularly associated with the use of stimulants, which, according to Lazzari:[12]

"... act like a neurochemical magnifying glass, magnifying the pleasure derived from most activities; for instance they produce a state of increased alertness and a sense of wellbeing, diminish anxiety and social inhibitions, raise energy, self-esteem, sexuality and enhance the emotions aroused by interpersonal contacts. ... In the subject's early experiments with low doses of stimulant, other people respond positively to his display of energy, enthusiasm and productivity, which acts as a reinforcement and adds a further effect to the euphoria produced by the stimulant".

Research shows that the onset of drug use often occurs during adolescence or young adulthood, a period of transition commonly characterized by stress and anxiety. Interviewed, adolescents sometimes say their drug use began as a way of 'managing emotions': coping with stress, depression, anxiety and isolation, and with the sense of living in a chaotic and disorganized world. At a more banal level, 'curiosity', 'my friends were doing it' and, 'there didn't seem to be any particular reason not to', are among the most common reasons offered for experimenting with illicit drug use.

Stimulant users tend to deny negative consequences.

The Dutch National Institute on Alcohol and Drugs (NIAD)[13] noted that cocaine users were most frequently motivated to initiate use through curiosity and through a desire to experience anticipated effects such as euphoria, stimulation and enhanced sexual motivation. Some users report that stimulants enhance the experience of listening to music, that they elevate mood and improve a sense of communication with their peers. An Indian government study carried out over 33 cities in 1989 indicated that the most common contributing factors for illicit drug use were peer group pressures and curiosity, followed by unemployment, poverty, the family environment, stresses and strains of modern life.[14] A survey carried out in Pakistan suggested illicit drug use was primarily the result of social and personal factors (acceptance by others: 33.2%; in order to be social: 14.3%; relief from social stress: 13.4%; to enhance sexual performance: 8.3%; curiosity: 8.3%; relief from physical stress: 6.5%; to improve work performance: 5.4%; treatment of health problems: 4.4%).[15]

Nepalese youth involved in local prevention programme.
Photo: UNDCP.

In the industrialized countries, first use of illicit drugs rarely seems to occur as a result of compulsion or encouragement on the part of drug dealers, but in some countries in Asia and in Africa the development of new trafficking routes has been linked to increasing abuse problems, suggesting that traffickers and local entrepreneurs have been engaging in aggressive marketing.

Several researchers have pointed to shifts in the variables which modify drug taking patterns as a 'drug career' develops. Curiosity alone is unlikely to maintain a habit of several years' duration. The value attributed to a sense of shared identity, which may be a strong reinforcing element in the first stages of drug use, appears to diminish with continuing use. Likewise the shift from taking illicit drugs in a social context to a mixed social/solitary pattern signals the transition from a casual to a more dependent pattern of use. Lazzari[16] notes: "Later on, the discovery is made that a greater quantity of the substance intensifies the pharmacological euphoria and, provided there is no restriction imposed by the subject himself or by the environment, the dose is increased. This state of intoxication becomes more and more concentrated on the intense inner sensations of euphoria and the subject gradually loses touch with what had begun as a social experience. The craving for this euphoria can become so overpowering that the signs of imminent personal disaster can be ignored."

In their longitudinal (long-term) study of 'problem-behaviour proneness' of individuals between the

ages of 13 and 30, Jessor and Jessor[17] found that the single most 'defining variable' for distinguishing adolescent drug use was the extent of conventionality or unconventionality, and that the more *independence* was valued above *academic achievement*, the more likely was an adolescent to indulge in problem behaviour. Overall, their results suggested the adolescent most prone to illicit drug taking is one who is:

(a) Concerned with personal autonomy;
(b) Has a lack of interest in the goals of conventional society as embodied by conventional institutions like church and school;
(c) Has a jaundiced view of society at large;
(d) Has a more tolerant view of transgression (Becker's deviance); and
(e) Perceives less parental support, less compatibility between friends' and parents' expectations, a greater influence of friends over parents and greater support by friends for the behaviour.

Craving for euphoria can make people oblivious to imminent personal disaster.

The findings revealed no significant differences between male and female interviewees, and personality characteristics played a modest, though significant role. For the age group studied, 'perceived environment' is an extremely dynamic concept such that the transition from adolescence to young adulthood tends to be accompanied by increasing tolerance of transgression, and this in turn may be associated with behavioural changes. This "developmental move away from conventionality", depending on how young it begins, is seen as a predictor of a willingness to engage in problem behaviour.

Particularly relevant were tolerance or intolerance of deviance, perceptions of the positive or negative functions of drinking, sex and illicit drug use, and religiosity, which was negatively associated with problem behaviour. This last characteristic is substantiated by a study carried out in Jamaica, where regular churchgoing, regardless of denomination, seems to be a strong protective factor against the use of all addictive substances, including tobacco.[18]

A study carried out by Andrados[19] to compare family-related variables on drug use in Spain with those surveyed in the United States of America highlights the importance of the quality and quantity of parent-child interaction, reactions to parental control, age at onset of use, frequency of use, style of parenting and monitoring, and parental and siblings' use of legal and illegal drugs.

Parents and siblings clearly constitute the primary influence on the behaviour of a growing child, but as adolescence approaches these are felt to recede in favour of peer group. WCC Photo: © Peter Williams.

Andrados reports that cannabis use amongst young people is *not* affected by parents' drug *behaviour*, but that parental influence stems primarily from their *attitudes* and from their closeness to their children. The findings show adolescent drug use to be negatively associated with parent-child communication about drugs and that, conversely, "... the quality of the adolescent's relationship with his parents seems to be the best protective factor against the use of drugs". Of the two parents, the quality of the child's relationship to the mother was more relevant than that of the father (at least for cannabis, amphetamines and prescription drugs).

Although he feels no single theory is broad enough to explain adolescent responses to different socializing stimuli, Andrados reaches three conclusions: "... peers' use of the substance is a primary influence; age at onset is clearly related to further use; earlier use of a substance is associated with more intense use and wider use of other drugs at a later time".

Parents and siblings clearly constitute the primary influence on the behaviour of a growing child, but as adolescence approaches these are felt to recede in favour of the peer group. Some research suggests that the family influence can remain predominant, but only if the family unit is strong and united; the weaker the family, the greater the peer group influence. Kandel's study[20] of the relative impact of parents and peers on adolescent drug use (including alcohol and tobacco) tends to support this, and notes that only 17% of students used a drug when their parents did and their best friends did not; the highest levels (67%) came when both parents and peers did. Amongst family-related variables, Plant and Plant[21] stress rules of conduct and the consistency with which these are applied, the extent of physical affection, parental trust and understanding, and the time spent by a family in shared activities. Studies of solvent abuse have shown that users tend to have marked feelings of aggression manifested by the rejection of all forms of authority, and come from incomplete family surroundings with rejecting figures within them.

The quality of the adolescent-parent relationship is important.

Swedish adolescents in mandatory out-reach programme. Photo: © H. Knutagård.

It has been suggested[22] that peer group influences may have been over-emphasized. Adolescents may overestimate the extent to which their peers indulge in certain forms of unconventional behaviour such as drug taking, when in fact they are projecting desires (and possibly concerns) about their own behaviour on to a wider circle. Since more adolescents do not take illicit drugs than do so, the dominant peer group ought logically to be the non-drug-taking group, and the prevailing peer pressure working against drug use. Alternatively, it might be the case that adolescents select their friendship circle partly on the basis of existing drug behaviour rather than the other way around. If the process of selection predates the friendship, and thus selection rather than influence produces the association, then the association would merely serve to reinforce the common behaviour.

Links are sometimes made between drug use and children who have grown up in homes affected by divorce, separation or bereavement. On the whole research does not substantiate a causal effect unless the family unit is qualitatively dysfunctional. A Brazilian survey of drug use amongst high school

students[23] reports that violence in the home is the factor most frequently associated with drug use behaviour. Divorce and separation make no difference if the family environment is one in which there is no violence, where problems are habitually discussed and parents are concerned about their offspring. In this study, the incidence of drug use was more than five times greater among adolescents living with much domestic violence, in homes where dialogue did not take place and parental interest was lacking, than among adolescents living without violence, in homes where dialogue was frequent and parents expressed their interest. Individuals' subjective perceptions of their own family environment were shown to have a stronger impact on drug use than objective factors such as the conjugal status of parents.

The idea that drugs can solve a wide array of problems encourages the growth of a pill-taking society.

A study of drug use in Peru[24] came to similar conclusions:

"The existence of a cohesive social structure at family and at community level, together with clear expectations surrounding its members, their rights and the needs of the group was the best guarantee against any kind of abuse or transgression".

Prevailing family attitudes in matters of health care and health consciousness may influence both licit and illicit drug use – for example, where even trivial illnesses create an atmosphere of anxiety, immediate recourse to the doctor's surgery, to over-the-counter remedies, or to traditional family cures. It has been mooted that the practice of family members giving each other injections, common in Italy, may have contributed to the high incidence of injecting drug use in that country, where syringes are perceived as a normal component of domestic medical equipment. The impression that drugs can provide a ready solution to a wide array of problems – whether through prescribed medicines, alcohol or illicit drug use – is thought to provide a 'pro-drug socialization model' for young people[25] and encourages the growth of a 'pill-taking society'. This seems to be the case in the USA, with the liberal and widespread prescription of drugs such as Ritalin and Prozac. The easy recourse to, and availability of, psychoactive substances through lax prescribing practice or through inadequately controlled pharmaceuticals may pave the way for future abuse. This has occurred in Central and West Africa where the increasing abuse of amphetamines and barbiturates is attributed to the proliferation of street pharmacies, supplied by production facilities set up in various countries of the region.[26]

2.3. SOCIAL-ENVIRONMENTAL AND CULTURAL FACTORS

As has been seen, the use of psychoactive substances has been absorbed into many cultures through ceremony, tradition or functional usage when, far from being 'deviant' behaviour, drug use has been integrally bound to the spiritual and social life of the inhabitants. The observation of controlled drug use in primitive societies raises questions of social equilibrium, self regulation and cohesion, and about what transforms the 'good' (or acceptable) drug use of responsible moderation, enshrined in rules and ritual, into the 'bad' drug use of uncontrolled excess and social degradation.

"Which is it today?", I asked [Sherlock Holmes]. "Morphine or cocaine?"
"It is cocaine", he said, "a seven percent solution. Would you care to try it?..."
"My mind", he said, "rebels at stagnation. Give me problems, give me work, give me the most abstruse cryptogram or the most intricate analysis and I am in my own proper atmosphere. I can dispense then with artificial stimulants. But I abhor the dull routine of existence. I crave for mental exaltation. That is why I have chosen my own particular profession, or rather have created it, for I am the only one in the world!"
(Arthur Conan Doyle, The Sign of Four)

New patterns of psychoactive drug use in developing countries may initially develop alongside and then gradually come to supplant traditional forms of use. Tradition contributes to the widespread acceptability of cannabis or *ganja* in Jamaica where, according to a survey, up to 93% of the population in rural areas believe that sporadic use is not harmful, and where it is reportedly used by 2.8% of school children.[27] It is also believed that the traditional practice of chewing cola nuts (with stimulant properties) in Africa, may have contributed to the modern problem of stimulant abuse in pill form.

The rapid disintegration of traditional social structures has been put forward as a contributing factor to new patterns of drug abuse in countries in a state of transition, where there has been insufficient time to replace the old norms, values and customs with new ones. This 'cultural dislocation' or 'disculturation' has been noted in the countries of Eastern Europe, and also amongst second-generation immigrants from Third World to western countries who, it is suggested, may turn to drugs as a retreat from an internal tug-of-war between the stricter, traditional values of the parental generation and the more disorderly, less disciplined, less cohesive world in which they grow up.

Feelings of marginalization, of non-identification with the cultural environment are frequently the basis of broader drug use theories. Philosophical starting points include the concepts of *alienation* – in both the Marxist and the existential interpretations – and of *anomie* as defined by Robert Merton.[28] For the Marxist, alienation is the result of a system of class domination and of non-ownership by the working classes of the means of production. The existentialist, on the other hand, is continually striving for a reconciliation of *being and consciousness*. According to Merton, anomie is the state which exists when there occurs a weakening of the rules of conduct which maintain social solidarity, and when an individual feels unable or unwilling to achieve the conventional or culturally-defined goals set by society using the socially prescribed means of attaining them. The withdrawal from this conflict has been termed *retreatism*.

Isolation and alienation are sometimes cited as factors contributing to adolescent drug use. Photo: © H. Knutagård.

The anguish of cultural alienation occurs in much of the literature on drug abuse. Heroin addiction among US troops in Vietnam in the 1970s was strongly related to feelings of acute loneliness and estrangement. In quite different circumstances, in Manipur, in the North East of India, "... heroin use

Disintegration of traditional structures may underlie new patterns of drug abuse.

is fast becoming a cultural pattern of youths to counteract the extreme despair and frustration of a geographically captive population where education has lost its credentials, jobs are simply not available, the quality of life leaves much to be desired, insurgencies are commonplace and social-political stability the casualty. Joblessness creates vagrancy which has an immense potential for destruction and violence, and wayward youth with nothing positive to look forward to take to chemical euphoria as a catharsis of pent-up despair, anguish and suffering".[29]

It is generally acknowledged that time-specific cultural influences may alter patterns of drug use. The importance of the 'historical moment' is well illustrated by the period of the late 1960s/early 1970s when a wave of youth and student protest swept Western Europe and North America. Against a background of heightened Cold-War tensions and fears of all-out nuclear warfare, the peace movement that emerged took as a popular target the US presence in Vietnam. For an entire generation, the assumption of an international youth identity embraced anti-authoritarian protest of all kinds, sexual liberation (the contraceptive pill had just become widely available), pop music and illicit drug use. The rock concert held in Woodstock in 1969 became famous not only for the number and quality of the rock groups and singers who played there, but also for the open drug scene that characterized the uninhibited three-day 'happening'. The modern day equivalent may be the widespread use of MDMA or ecstasy (see Part 3) at 'rave' parties and discotheques – a trend which has been most prominent in Western Europe but is now spreading around the world, in particular to popular tourist locations in Asia. The glamorisation of illicit drug use through an association with pop music culture, television and film portrayals has also been noted in Pakistan, in Peru (see Part 3, Box 3A) and in Central and West Africa.

Illicit drugs use generally starts in adolescence and declines from the late twenties onwards.

Price, availability and legal status are important influences on illicit drug use. Clearly, availability is a *sine qua non* for any form of drug use, therefore what must be assessed are degrees of availability of different drugs rather than availability itself. The relationship of availability and price to prevalence of use is discussed in Part 5 (The Regulation-Legalization Debate). Legal status is discussed in 2.6.

Age, gender and socio-economic factors

Part 3 will examine the consequences of illicit drug use on specific social groups. The purpose of this brief survey is to see whether any research points to age, gender or specific socio-economic background as having a particular causal or correlative link.

Worldwide, adolescence and young adulthood are the periods most associated with the onset of illicit drug use. A report prepared by the Pompidou Group of the Council of Europe on drug abuse in 13 European cities[30] indicates that under the age of 15, lifetime prevalence of cannabis use is low (5%) although solvent use is reported in higher proportions. By 17 – 18 years, between 20 and 30% are reported as having tried cannabis at least once; among young adults the rates were often over 30%.

WHO's regional European office reported on "Sociocultural Factors in Drug Abuse" in 1990.[31] The participating countries – Austria, France, Hungary, the Netherlands, Portugal, Poland, Spain, Switzerland, the former Soviet Union and the United Kingdom – concluded that age was an important correlative in all the participating countries, with a pattern of illicit consumption emerging whereby children and adolescents tended to use solvents and cannabis, young adults used heroin, other opiates and cocaine, and adults psychotropic substances and stimulants such as amphetamines and cocaine.

Most research into drug use prevalence suggests that illicit consumption declines from the late 20s onwards. This is confirmed by a US study[32] which reports that few individuals initiated legal or illegal use of drugs after age 29. Highest rates of initiation after this age were reported for medically prescribed substances. The period of highest risk for initiation into cannabis was generally over by age 20, with a peak at 18. The risk for cocaine initiation appeared to peak at ages 21 – 24 and taper off by 30. Patterns were similar for men and women. Cannabis use rose steadily from ages 14 to 19, stabilized for 4 – 5 years and then began a continuous decline from 23 – 24 onwards. During the early 20s, when overall use was most prevalent, almost three times as many men as women used illicit drugs other than cannabis.

Data on misuse prevalence of prescribed psychotropics showed little variation over time, and while a large proportion had misused them at some time, the proportion at any given time was low, suggesting short duration of use. These were the only types of drug for which user rates were consistently higher for women than for men. For all types of drug (including alcohol and tobacco) initiation rates were higher for men and cessation rates were higher for women.

Colombian school girls participate in prevention programme. Photo: UNDCP.

In interpreting their data, the authors suggest that two parallel processes may converge to bring about reduced drug use: first, the assumption of adult and/or family roles which may be related to greater conformity and a lessened desire to use drugs illicitly; and second, an increased access to the medical system, which may in turn open up a more convenient route to self-medication. In this sense, different drugs were thought to serve similar functions at different periods.

Age patterns in Asia and Latin America provide a somewhat different picture, although wherever there is inhalant abuse it is always concentrated among the youngest age group. In Colombia 6.6% of the population aged 12 – 17 had tried inhalants in 1993; the highest level of illicit drugs consumption is in the 25 – 44 year old age group. In Thailand, consumers of volatile solvents are generally aged 15 – 19 although most illicit drug users are aged between 20 and 25, with opium users in a higher age range from 21 – 60. In Pakistan, problematic drug use is mostly concentrated in the 26 – 30 age group. The average age of onset of heroin use is 12.4 but cannabis is more widespread than heroin use among those of 20 years or less.[33]

According to the Pompidou Group[34] research, drug dependent males outnumber females by a ratio of between 2:1 and 4:1, but females tended to be younger than males. In some cities such as Lisbon and Oslo there had been a notable increase in new female addicts in the younger age ranges. Surveys of drug use in the general population or amongst young people reported more equal rates of drug use for both males and females.

WHO's 1990[35] report also pointed to higher levels of overall drug use amongst males than females. In the then Soviet Union, of the 130,000 drug users registered by the Ministry of the Interior, only 12% were women; in France 26% of users in treatment in 1986 were women; in the United Kingdom 20% of notified addicts were women but there was increasing evidence from the UK, Switzerland and Austria of a trend towards increasing drug use amongst females.

In developing countries, the official statistics indicate that the overwhelming majority of problematic drug users are male – in Pakistan, for example, 98.96% of those using drug treatment services are male. In Colombia however, more than two thirds of prescription drugs are misused by women. In many countries it is believed that female involvement in drug-related problems is seriously under-reported, and that because female drug abuse tends to be more stigmatized, women are less likely to come forward for help. This is analysed further in Part 3.

Female involvement in drug problems is seriously under-reported.

Illicit drug use in the 1960s and early 1970s was characterized by an expanding consumer population world-wide and by an expansion into use of new drugs and/or new methods of consumption. Whereas it was associated in many western countries

with a counter-culture of prevalently middle-class origin, in the 1980s and 1990s this seems to have been gradually superseded by an association – especially of the opiates and crack cocaine – with groups and geographic areas affected by social or economic deprivation and high unemployment. In some countries, lack of prospects is seen as providing an important context for illicit drug use. According to WHO[36], deprivation must be viewed as a relative term, and applied when a person's socio-economic status is worse than that of his/her parents – downwards social mobility. In some countries, however, use of particular drugs was seen to represent a form of subjective upward social mobility for those of low socio-economic status.

Cities such as Amsterdam and Barcelona showed higher prevalence of drug use (especially cannabis) in middle class areas or among people with a higher educational level. In Oslo, on the other hand, cannabis use was highest among young people who had not completed their schooling. There was a strong association in Barcelona, Dublin, Paris and Stockholm between dependent drug use and relative social deprivation. But this was not true for all cities – for example, Geneva and London, where heroin dependency seemed to be more widely spread across social groups.

Ethnic minorities were disproportionally represented among addicted populations in Amsterdam and Paris although this was not the case in Barcelona, Dublin, Helsinki or London. There had been some concern in the UK over increased crack cocaine availability within the Afro-Caribbean population but there was no information regarding how many users came from this sector. In Stockholm and Oslo, there were indications of a trend in the early 1990s towards heroin smoking among young groups of immigrants or the children of immigrants. In Amsterdam only about one quarter of heroin and cocaine drug users belonged to an ethnic minority; cannabis smoking was particularly prevalent among the Turkish community in Athens. It was thought the association between drug use and ethnic status may have been mediated by social and economic deprivation.

Illicit drug use expanded world-wide in the 1960s and early 1970s.

Maori youth in residential drug treatment programme.
Photo: © H. Knutagård.

Ethnic status may also be linked to mode of drug use: while 40% of white Dutch heroin users in Amsterdam were found to be drug injectors, Surinamese and other ethnic minorities rarely were.

Survey data in the USA provide differing perspectives on drug use among ethnic groups: high school senior surveys in the USA show much higher prevalence rates among whites than for Afro-Americans and Hispanics, although the National Household Surveys show higher rates for Afro-Americans than for whites.

Reports from Thailand suggest that around 25% of dependent heroin users who sought treatment between 1986 and 1990 were unemployed; 70% had completed primary school. In Pakistan, drug abuse is more prevalent among those who are literate. Of illicit users, 22 – 24% had 10 years of schooling or less, and 15 – 17% had 11 years of schooling or more. Drug problems were spread among different occupational groups, with about 80% earning less than the national average monthly wage. In Colombia education is associated positively with drug abuse, with the highest levels found amongst those who attended but did not complete university. For more information on the eight 'core' countries, see Part 7.

2.4. RISK-TAKERS AND SENSATION SEEKERS

Nearly everyone is familiar with the thrills and excitement that accompany risk-taking behaviour. Some people 'get their kicks' in driving fast, in skiing down a precipitous slope, in hang gliding or in rock climbing. Many forms of risk taking are socially approved of and command admiration, as when a particularly difficult mountain peak is climbed for the first time. Studies suggest that illicit drug taking, because it is a risky activity and courts several kinds of danger – that of law breaking, of damage to health, of losing personal control – can also constitute a form of self-reinforcing behaviour which has an impact which is quite independent of the physiological effects of drugs.

Plant and Plant[37] point out that risk taking and experimentation are considered normal in adolescence as a means of reaching independence, maturity and identity. Taking risks may in itself be a means of gaining the approval of or entry to certain groups. But perception of risk differs from actual risk; adolescents often appear to have a sense of immortality and invulnerability coupled with a readiness to take risks which leads them to overestimate their own capacity to avoid self-destructive use patterns. Some individuals, on the other hand, see life as so wretched and miserable that the concept of risk has no significance. When there is nothing to lose there can be no sense of risk.

Wood et al.[38] suggest in their study of 1,600 US high school students that the stimulation provided by risk taking can be the primary motivating factor for delinquent drug use. On this basis, adolescents who get bored easily are driven to seek out more intense stimulation and experiences than are provided by normal daily activity. The sensory and physiological stimulus brought on by thrills and adventure may be instrinsically rewarding and, they suggest, may encourage recidivism through positive reinforcement. Wood et al. argue that the physiological process that reinforces risky behaviour is the same physiological process that produces the reinforcing effect of many drugs; they use the term 'edgework', first coined by Hunter Thompson, to describe the practice of pushing drug consumption 'to the edge' (to the point where the maximum amount of sensory experience occurs without the consumer losing control or provoking a 'bad trip' or an overdose) and then adopted by Lyng[39] in his study of 'voluntary risk-taking' in 'conventional' activities such as hang-gliding. Wood et al. suggest that " ... while sensation-seeking traits like impulsivity, an appetite for thrill-seeking, and a demand for immediate gratification may contribute to initial substance use, such behaviours then trigger a system of endogenous rewards (the pharmacological effects of the drug [...] and the "high" associated with dangerous, risky behaviours) which in turn promotes further substance use as the individuals learns to appreciate and seek out those intrinsic rewards".

For adolescents the risks are part of the attraction.

Risk taking can be a factor for drug use.
Photo: UNDCP.

A final reward comes with the sense of achievement and self-satisfaction at successful completion of risky activity, as identified by Lyng: "Participants in virtually all types of edgework claim that the experience produces a sense of self-realization, self-actualization, or self-determination". Thus the successful completion of risky behaviour – the feeling of 'having got away with it' – may be another incitement to continue.

One must then ask why some individuals should be drawn to 'deviant' forms of risk-taking behaviour whereas others choose culturally approved outlets. On the assumption that everyone has some need

"I swam in an ocean of sound in which floated, like small islands of light, melodies from "Lucia" and from "The Barber of Seville"... I was absorbed in a vast emptiness and became wholly disengaged from myself, entirely absent from my body ... At each moment waves of happiness surged over me, entering and leaving through my pores since I had now become permeable. Out to the smallest capillary vessel all my being became filled with the colour of a million fantasies into which I had plunged. Sounds, perfumes and light came to me through a multitude of tubes as fine as hairs in which I heard the whistling of magnetic currents. According to my calculations, this state lasted about 300 years, for the sensations which succeeded each other were so numerous and intense that any real appreciation of time was impossible. The delirium passed. I saw that it had lasted a quarter of an hour."

(Theophile Gauthier, poet and writer, after taking hashish)

for sensory stimulation but that some may need it more than others and that there may exist differential access to means of attaining it, Wood et al. conclude that "... high demand for sensory stimulation and limited access to culturally approved forms of sensation seeking would make the individual or group more likely to engage in deviance". The authors acknowledge that deliberate indulgence in risk-taking behaviour appears contrary to rational choice and deterrence theories, given the intrinsic risk of being caught and punished, but they argue that the risk of negative consequences might be compensated in an expected utility calculation by the positive gains in taking and successfully overcoming the risk.

In their study, "Addiction as Extreme-Seeking", Barthold and Hochmann[40] maintain that sustained addictive behaviour is neither normal nor typical. They too emphasize the reinforcing aspect of drug consumption, and assert that the key to understanding addiction is the degree to which addictive behaviour reinforces itself within a brief span of time and as it continues, progressively shuts off the option of quitting. The authors endorse the idea that "... addiction develops with 'capital effect', a kind of legacy of cumulative consumption; past participation creates a stock or history which adds positively or negatively to the utility of current or future consumption".

2.5. PERCEPTIONS OF USE AND NON-USE

The explanations given by non-drug users for *other people's* use and for their own *non-use* may be useful in understanding this important difference. Lerner's study of illicit drug use in Peru[41] separates drug use by two types of motivation – *endogenous* factors, pertaining to the user and his internal world, and *exogenous* factors, pertaining to external circumstances. Within the two categories some factors were more stable than others, for example availability and poverty were both exogenous, but the latter was more stable than the former; similarly 'bad mood' and 'insecurity' were both endogenous, with the latter being more durable.

Lerner analyses responses to a questionnaire completed by two groups, one of which had never used drugs illicitly and another which had done so at least once. Explanations *for* use were broadly similar in both groups, and fell into three types – *processes* (curiosity, social pressure); *problems* (family, psychological and economic); and *lack of action* by others (an absence of prevention or education programmes). But the most significant differences between the groups lay in their explanations for non-use: those who had never illicitly used drugs gave *knowledge of consequences* as a reason for non-use much more often (49.4% compared with 30.3% of users). Lerner notes, "They prefer human rationality and cognitive factors as an explanation as to why people do not engage in counterproductive behaviour. In a way it is a sort of rationalization of their respect for social conventions and norms. In the end most of the people who do not do what should not be done, act that way simply because they should not ... *(they)* internalize the reasons for the interdiction even if in the long run what is more effective in controlling their behaviour is the prohibition as such ... Consumers also refer to knowledge of consequences but much less so than non-consumers ...they focus on explanations such as "they do not need drugs", "they know how to take care of themselves". In this case consumers see in non-consumers what they do not possess: the capacity to dispense with drugs. They do not have problems or if they do, they manage them in other ways".

An opium poppy lanced in an unusual diagonal fashion.
Photo: UNDCP.

Not surprisingly, the semantic field, or choice of words selected by the users was more discerning and oriented to personal experience, while their responses reflected whether they felt 'strong' or 'weak' about their use; the non-consumers tended to choose words reflecting moral judgements, condemnation or fear. Drug users also fell into what Lerner calls a 'semantic trap' – they claimed they maintained the habit when it brought them pleasure and discontinued it when it brought them problems. But they explained *other users'* behaviour in a diametrically opposite way, namely that drug use begins to alleviate problems and is discontinued once the problems are resolved. This may be another example of the *optimistic bias* towards own use mentioned earlier.

Drug users judge their own and others' behaviour by different standards.

Differing views of drug use by users and non-users also emerge from a study carried out by the Lambeth Drugs Prevention Team in the UK.[42] The study compared perceptions of the drug problem held by users and dealers with those of residents not involved in the local drug scene and found that these varied according to the distance separating respondents from the drug milieu and from problematic drug use. Explanations common to both groups were that drugs were "relaxing", "available" and "fashionable", with "pleasure" stressed in particular by non- and occasional users. Some users claimed they had turned to illicit use of drugs after experiencing problems relating to legally available drugs such as alcohol or prescribed pharmaceuticals. Feelings of ambiguity emerged about the 'image' of the drug-taker – "The fact that most illegal drugs can be smoked was regarded as an incentive to experimentation, smoking being a mode of adminstration which helps avoid the self-identification of users with addiction".

Most users said they initially saw a "residual glamour attached to the drug world" which appeared to

them to be "free and exciting". But they soon realized that it involved "risks and a lot of work". Respondents who were nearest the drug milieu were more aware than non-users that young people were being drawn into experimentation with drugs.

A significant discrepancy in the attitudes of drug users/dealers and non-users was in their perceptions of the drugs-crime link. Respondents outside the drug scene felt that the relationship between drugs and crime was not strong, and that drug users were no more responsible for crimes committed in the area than non drug users. In contrast, around half the users admitted financing their drug use at least partly through crime. The researchers attributed this discrepancy to self-reporting by users that they preferred to target big (and presumably non-local) shops for their acquisitive crime, and to admissions from many ex-users that their principal victims had been their immediate circle of friends, family or other users.

2.6. FORMAL AND INFORMAL SOCIAL CONTROLS

Robert MacCoun[43] reviews various ways in which the legal system impacts on drug use; he separates the deterrent effect of expected punishment from the deterrent effect of moral prohibition, and distinguishes *moral* judgements from *instrumental* judgements about risk and reward. The existence of a prohibition can influence behaviour independently of the threat of punishment, and some potential drug consumers may be deterred more by the health consequences of drug abuse than by the legal sanctions. Others may not consider drug use in terms of rewards and risks simply because they do not feel drug consumption is part of their "self concept".

The perceived legitimacy of drug laws may affect the degree to which they are obeyed.

MacCoun divides perceptions of the law into three categories:
(1) Perceived morality of the act;
(2) Perceived morality of the law; and
(3) Perceived legitimacy of the law.

If an individual perceives an act as immoral then he/she will not perform it, regardless of the presence of the law. For such individuals, sanction threats are irrelevant. MacCoun suggests people have different beliefs concerning the morality of the law: some have a "rule-obeying perspective" and comply in order to avoid punishment. Those with a "rule maintaining perspective" believe in the validity of, and respect for, the status quo. For such individuals the existence of the law is a "symbolic threshold" – not a threat, but the embodiment of legitimacy. If the very existence of the law serves as a symbolic threshold for some, for others it may have the opposite effect – of "forbidden fruit" – making the outlawed activity intrinsically attractive. This could be particularly relevant for adolescents, who may find restrictions on choice, censorship or the appeal of the forbidden activity irresistible. Illicit drug use (or some other proscribed behaviour) may be precipitated when an individual perceives that others have broken the law and got away with it.

How individuals perceive the legitimacy of the law – in this case drug laws – may affect the degree to which they are obeyed. If laws are perceived as being imposed by certain interest groups, as victimizing specific minority groups or as being an invasion of privacy, there will be less incentive to respect them by different sectors of the population. On the other hand, laws which spring directly from a broad groundswell of public approval will enjoy wide respect, as for example, do the drug laws in Sweden. Social consensus may precede and directly evoke legislation, as with the grassroots anti-smoking movement in the USA. In such cases the law provides "normative validation" for the expression of public opinion.

Social and informal sanctions such as *stigmatization, labelling* and *shaming* may be even more of a deterrent than formal legal norms, both in traditional and in industrialized societies. The humiliation of being publicly identified that accompanies legal sanctions on drug use, may deter the potential user as much as, or more than, the sanctions themselves. On the other hand, labelling someone as a drug user may actually increase the likelihood that the person will continue use, in the sense that the identification of an individual with a deviant group

"Opium introduces ... the most exquisite order, legislation and harmony ... communicates serenity and equi-poise to all the faculties ... Opium makes the consumer feel that the diviner part of his nature is paramount ... the moral affections are in a state of cloudless serenity; and over all is the great light of the majestic intellect. Thou hast the keys of Paradise, oh just, subtle and mighty Opium ..."

(Thomas De Quincey, The Pleasures of Opium, Confessions of an English Opium Eater)

may become a self-fulfilling prophesy. This is an argument widely used against the arrest and imprisonment of first-time or young drug users. The counter-argument is the principle of 'reintegrative shaming', namely that the humiliation itself produces subsequent compliance. This may work if social disapproval is temporary and followed by forgiveness; but if forgiveness is withheld then the opposite can occur and the shaming is 'disintegrative', leading to greater marginalization and further law-breaking. The stigma associated with drug law violation may be both subjective and objective, in that the convicted drug user may be stigmatized socially *and* formally, through debarment from certain types of employment.

2.7. HOW DO PEOPLE QUIT?

A relatively under-researched aspect of the drug issue is that of cessation, or the motives that lead drug users to give up the habit. If drug use has developed into a fixed pattern, the user's social circle may revolve around co-users, especially if dependent use is involved. The constant 'hustle' to find drugs reduces the user's time and interests in non drug-related activities and non drug-user friends. Just as a sense of identity may have been discovered through sharing the risks and excitement of a first-time experience, regular or daily use confers its own sense of identity. One reason for quitting the illicit drug habit may be precisely the desire to reject the 'label' of drug user, junkie or addict attached by others, and a desire to rejoin the 'non-deviant' majority. Seven reasons for giving up drug use have been suggested.[44]

(1) Availability: The source of drugs either dries up or becomes more restricted; price factors may push the drug of choice beyond the reach of the user who, rather than switch to a substitute, decides to quit;
(2) Psychological or emotional reasons: These may be linked to a personal event, to weariness at the stressful lifestyle which the constant search for drugs imposes (sense of social marginalization, police hassles etc.) or to a feeling of having 'hit bottom';
(3) Health or physical reasons: The user, either experiencing or anticipating a health crisis, decides to give up;
(4) Legal involvement: The drug user decides to give up in the face of anticipated or actual legal sanctions;
(5) Family or friends: Pressure from family or friends, divorce or separation, death of significant other person persuade the user to give up;
(6) Relocation to another area; and/or

Residential treatment programme for young men.
Photo: © H. Knutagård.

(7) Employment: The user quits either from fear of losing his/her job, or due to obtaining a new or better job.

The ability to sustain employment prior to addiction may be a crucial factor in quitting.

The question of whether a regular or dependent drug user will, independently of all other factors, simply 'mature out' of the habit, has not been answered satisfactorily. Research into maturing out was begun in 1962 by Charles Winick,[45] who defined the process as one by which "... the addict stops taking drugs, as the problems for which he originally began taking drugs become less salient and less urgent". He found that addiction lasted on average 8.6 years, but that the younger a person was at onset the longer he/she was likely to continue the habit. Subsequent research suggested that the primary factor leading to eventual abstinence was the addict's ability to sustain employment prior to addiction rather than the length or strength of addiction. Other factors felt to be relevant were high levels of involvement in crime and drug dealing, difficulty in maintaining the hustling lifestyle, and the personal and social resources and experience of the addict.

Relapse, and the craving that may follow the attempt or attempts to quit, are other complex and relatively little understood problems. Improved understanding in these areas would be of particular relevance to policy makers and could profoundly affect the treatment and status of drug dependent individuals.

UNDCP sponsored treatment programme for heroin addicts in the Palarck region of Lao PDR. Photo: UNDCP.

"The opium eater ... curses the spells which chain him down from motion ...
but he is powerless as an infant, and cannot even attempt to rise ...
I seemed every night to descend ... into chasms and sunless abysses, depths
below depths, from which it seemed hopeless that I could ever re-ascend.
I sometimes seemed to have lived for 70 or 100 years in one night ...
I was the idol ... I was sacrificed ... was buried, for a thousand years, in stone coffins,
with mummies and sphinxes, in narrow chambers at the heart of eternal pyramids.
I was kissed, with cancerous kisses by crocodiles, and laid, confounded with all
unutterable slimy things, amongst reeds and Nilotic mud".

(Thomas De Quincey, Introduction to the Pains of Opium, Confessions of an English Opium Eater)

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The first hit: Circumstances surrounding initiation into injecting[1] • Summary

Dr. Nick Crofts

INTRODUCTION

A central feature of Australian policy in relation to injecting drug use (IDU) is the principle of harm reduction – interventions designed to achieve the continuing reduction of harm associated with the injection of illicit drugs. Injecting drug users (IDUs) in Australia currently have access to Needle/Syringe Exchange Programs (NSEP) and pharmacies where they may procure and dispose of sterile injecting equipment. Methadone maintenance programmes and education at all levels from national media to peer-based street education are also accessible. Available evidence suggests that the continuing spread of the hepatitis B virus (HBV) and the hepatitus C virus (HCV) is very high among IDUs in Australia.[2] The spread of the human immunodeficiency virus (HIV), albeit at a relatively low level, is the most serious example of infection. New IDUs present a greater risk for the spread of these viruses, and will continue to do so as long as there is ongoing IDU recruitment.

Consequently, a better understanding of the circumstances surrounding initiation into injecting may assist in targeting future harm reduction strategies more specifically to those at greatest risk, as well as in devising new approaches for those who have just begun to inject.

The present study is an attempt to determine (i) the context and circumstances in which IDU's first begin to inject; (ii) whether the manner of initiation influences subsequent injecting behaviour in relation to risk of HIV transmission; (iii) whether a relationship exists between injecting risk and sexual risk; and (iv) the sources of knowledge about HIV infection and safe injecting among these young people.

METHODS

The Initiation into Injecting Study incorporated a team of 19 peer workers aged between 17 and 25 years, each having had personal experience of IDU. The initial draft questionnaire, developed by the investigators and workshopped with the peer workers during training, was applied by each peer worker to one outside IDU and then revised and finalized. The consenting subjects, all with a history of IDU, were recruited by the peer workers from their own social networks, from street intercepts in strategic locations, from the Melbourne Juvenile Justice Centre, and from the Melbourne Remand Centre. The study took place from July 1993 to June 1994.

RESULTS – THE YOUNG DRUG INJECTORS

Of the 300 subjects who took part in the interviews, 60% were male. Ages ranged from 14 to 22 years, the average age being 18.7 years, with only 11% still attending school. Most of the subjects left school before completing secondary education, with an average age on leaving full-time study of 15.7 years. Only 32% were still in full-time education. Of the respondents 90% were Australian born. Less than a quarter (23%) of those no longer in education were in paid employment. The majority of subjects (62%) were receiving unemployment benefits or welfare

support. Other sources from which income was derived included family, friends and partners (42%); income from drug selling (22%); burglary and theft (16%), and 5% from sex work. Of the 22% minority that were still living in the family home, more than half (58%) had returned to it after a period of living elsewhere. Among the 234 interviewed who were not living at home, severe domestic disturbance of some kind within the home was established as the main cause for leaving (69% of respondents). The average age for all respondents leaving home was found to be 15 years.

FIRST INJECTION

The average age at which these young people had first injected themselves, or had been injected by someone else, was 16.2 years, with the most common drug first injected being amphetamines. Of the 77% who used amphetamines, 88% had used them previously by a means other than injecting. Eighteen percent stated their first injected drug to be heroin but only 52% had used heroin previously by an alternative means. A large proportion of the subjects reported having been under the influence of some other drugs at the time of their first injection (82.5%).

Just under half (46%) of first-time injectors claimed the idea to inject was their own, 31% reported it to be from someone else, and the remainder was a mixture of the two. Two-thirds of first-time injectors stated that the incidence of injection 'just happened' (65%), whereby 25% had planned it. Those that were influenced by others into injecting would not normally contribute to the payment of the drug. The other party involved obtained the drug in 80% of cases and the recipient paid towards at least part of the payment almost half the time.

Only 12% of the subjects injected themselves the first time, half of whom had been shown by a friend. Of the remainder that were injected by someone else, 81% were injected by a friend. Only 4.5% of males were injected by a partner or lover, compared with 19% of females; the large majority of males were first injected by a friend or acquaintance (88%). It is interesting to note that 1% of the subjects had been injected by a parent or stepparent, 2% of whom reported that both parents had been injecting at the same time.

The reasons behind the decision to inject the drug as opposed to using other means fell into 13 categories of which only three bear percentages of mentionable proportions. The foremost reason being the instant effect produced by injecting (34%), followed by curiosity (24%) and peer pressure (18%).

EDUCATION AT FIRST INJECTION

Self-injected subjects were generally taught how to prepare the drug to a higher degree than those injected by others. However, only 29% of first-time injectors were taught how to clean syringes and 34% how to clean needles.

Before the first injection took place, most IDUs were aware of HIV (80%) and hepatitis B viruses (75%), and of the precautionary methods necessary to avoid infection, but only 50% had heard of hepatitis C virus. Of each of these groups 90% were aware that these viruses could be transmitted by sharing injecting equipment. Of these a substantial minority (13%) existed which, although aware of the risks, adopted a 'don't care' attitude, though it did appear that awareness was on the increase. Fifty-four percent obtained their new needles and syringes from the needle/syringe exchange programmes. For the IDU, the most credible education in relation to transmittable blood-borne viruses appeared to be that supplied by AIDS organizations, usually in the form of pamphlets and booklets (68.9%). At the other end of the scale, the least satisfying were government or media sources. The commonest sources of information were found to be through media (64%), parents (26%) and peer education programmes (10%).

CURRENT INJECTING

The majority (89%) had injected at least once in the last twelve months, for two-thirds of whom the drug most frequently injected was amphetamines. Heroin was more frequently injected (an average of 1.8 times per day) than amphetamines (1.4 times per day). During the preceding twelve months, two-thirds of injectors had injected the same drug that had been injected the first time. A rising number of IDUs who initially began injecting with amphetamines moved to heroin as the duration of use increased. Four years or more after their first amphetamine injection, only 45% were still injecting amphetamines, with approximately a quarter having moved to heroin (a change from 6% in the first year to 45% after four years).

Seventy-five percent of those who used a new needle and syringe the first time, and were also taught how to inject safely, reported continuing use of a new needle and syringe when injecting. Of those who had injected the first time with equipment which was used or of uncertain origin, 50% reported they now always used new equipment.

In comparison to the 12% who injected themselves the first time, 72% reported continuing to do so though 28% were still being injected by someone else. The average rate of injection was 9.4 times a week with a mean weekly expenditure of $389 during the previous twelve months.

INITIATION OF OTHERS INTO INJECTING

From the time of first injecting, nearly half the IDUs had introduced at least one other person into injecting, with a rise from 22% in the first year to 63% after five or more years. The average initiation rate was between 1.5 and 1.7 people; 0.3 in the first year to 2.5 after five or more years. When IDUs initiated others into injecting, 60% reported having informed the respondents of where they could obtain new injecting equipment, but only 31% informed them of the risks of HIV and hepatitis viruses. Multivariate analysis showed that those who reported having been engaged in dealing drugs, who were on the dole and injecting more than one drug, were significantly more likely to have initiated multiple others. It was also shown that those who were generally still injected by others were less likely to have been multiple initiators.

SEXUAL BEHAVIOUR AND SEXUALLY TRANSMITTABLE DISEASES

The average number of sexual partners from the sample of 266 respondents was 10.4. On average, the number of females' sexual partners tended to be considerably higher than that of males (14.5 as opposed to 7.6). Both male and female respondents showed a mean age of 14.3 years when their first sexual encounter took place, of whom only 42% reported using a condom. Of those with regular partners (51%), only 11.5% claimed always to use condoms, 47.3% report that they never use condoms. Thirty-seven percent of respondents reported having casual partners, and here there was a significant gender difference. Only 14.3% of males claimed always to use condoms with their casual partners, 19.5% said that they never used condoms. In comparison, condoms were reportedly always used by 40.6% of females with their casual partners and 25% responded that they never used condoms. Twenty-three percent of respondents claimed to have been paid for sex, 40% of whom were males. Sixty-eight percent responded that they always used condoms during these paid sexual encounters and 10.6% still did not use condoms with their paid partners. No gender differences were noted.

The majority of respondents had been tested for HIV (70%), 5% of whom reported a positive result. Hepatitis B tests had been carried out on 65% of the respondents, 7% of whom reported a positive result. Fifty-nine percent had been tested for hepatitis C, and 15% reported that their result had been positive. A 53% incidence rate of pregnancy was reported among the female respondents, the average age of pregnancy being 16.4 years.

RELATIONSHIP OF INJECTING RISK AND SEXUAL RISK

The data indicates that the proportion of the sample that engaged in risk behaviour in relation to both their injecting and sexual activities was substantial. The incidence of equipment sharing was reported as follows:

(a)	Needle/syringe use after use by somebody else	44.5%
(b)	Spoon sharing	62.0%
(c)	Filter sharing	44.0%
(d)	Shared rinse water	31.0%
(e)	Never rinsed	14.0%

Of the sample who indulged in risky injecting practices, 88.5% did not use condoms with their regular

partners, 78% did not always use them with casual partners, and 31.8% did not always use them with paid partners.

The data suggests there may be some association between injecting and sexual risk. Indeed, those who share needles/syringes were found to be more likely not always to use condoms during paid sexual encounters. Analysis of this relationship was still very preliminary.

CONCLUSION

The study examined the way in which young people begin to inject drugs in our society. The sample group was younger than is often studied by research into injecting drug use, where initiation into injecting drug use occurred at an average age of 16.2 years, compared with an average age of 18 – 19 years in cross-sectional studies. This may partly be due to the admixture in other cross-sectional studies of people who began to inject at older ages, but it may also reflect other factors: (a) 'speed' (this sample's drug of choice) is currently widely available and cheap; (b) young users learn from their friends, siblings, and in some cases parents; and (c) injecting is much more dose-effective and cost-effective than traditional non-injecting methods.

The study concluded that one of the main reasons that young people begin to inject is the greater effect of the drug when injected, and therefore that injecting is more economical. The quantity of drug required to achieve a 'rush' by an alternative non-injecting method may be more than twice the quantity required to achieve the same effect through injecting. A range of other potential factors can be hypothesized as important in the initiation of injecting, including:

(a) Situation factors such as unemployment, poverty and homelessness;
(b) The influence of the peer group – most peers of the new injector are drug users. Drug users, especially injectors, have been found to be related to, and not isolated from the peer group;
(c) The influence of relationship – friend, lover or sibling initiators;
(d) The role of incarceration in exposing young people to new peers, behaviour and attitudes; and
(e) Socialized attitudes to authority and institutions.

These points may be highlighted by findings from this study. Most were currently unemployed and were receiving benefits and over three-quarters were living away from the family home, a sixth being incarcerated in a juvenile justice centre or prison. In most cases there was a significant person who initiated the young person into injecting. Of those who injected themselves the first time, about half were influenced by an injecting friend; and of those who were injected by someone else the first time, most were initiated by an injecting friend. It would also appear that there is a gender difference for the route into injecting. Whereas for both males and females the predominant influence is the immediate peer group, sexual partners play a much more significant role for females than for males. Of those who injected themselves the first time, or were injected by someone else the first time, a far higher proportion of females were initiated by their partner than was the case for males.

Systems to survey initiation into injecting are urgently necessary to monitor trends in the numbers of people injecting and their characteristics; such information is at present entirely unavailable in Australia. It is clear that this is a group at great risk of blood-borne viruses and sexually transmissible diseases for whom interventions are urgently needed.

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Part 3:

The health and social consequences of drug abuse

INTRODUCTION

The principal characteristics of the drugs covered by this report are their potential for altering mood and behaviour and for creating dependence. Although many of them have considerable therapeutic value, they are also widely misused, thereby creating a series of adverse consequences for society. The aim of this chapter is to examine the different kinds of drug which are abused and to consider their impact on the individual and the community.*

Nerve cells in the brain communicate with each other by means of naturally produced chemicals known as *neurotransmitters*. A cell releases a neurotransmitter into the space between nerve endings known as the *synapse*; the molecules are then picked up by *receptor* proteins on the surface of the second cell. In the normal course of its activities the brain releases and absorbs neurotransmitters such as dopamine, norepinephrine and serotonin. Many drugs, including those with addictive potential, work by imitating or releasing these neurotransmitters or by blocking their actions. Blocking drugs, which occupy drug receptor sites in the brain and bind to them, are known as *antagonists*, while imitating drugs are known as *agonists*. The existence of different pathways in the brain means there are many different types of neurotransmitter and many different kinds of receptor, and the type of effect a drug produces depends on the type of neurotransmitter it reacts with. Cocaine, for example, blocks the brain's ability to reabsorb dopamine, with the result that the neurotransmitters remain trapped in the *synapse*, stimulating the receptors over and over again. Prolonged stimulation causes the reward, or pleasure associated with the drug. The greater the reward, the greater is the inclination to repeat the experience.

In laboratory studies the dependence potential of a drug can be measured by how long and hard an animal will work to maintain supplies. In human beings, physical dependence is characterized by drug-specific withdrawal symptoms and 'craving' – a slavish urge to find and consume more of the drug. This condition is both psychological and physiological, but has a biochemical explanation: the body's ability to reproduce chemicals naturally becomes depleted by artificial chemical stimulation, causing a deficiency when the drug is no longer available.

Tolerance occurs when repeated use of a drug requires the consumer to increase dosage in order to experience the same "high". *Cross tolerance* exists within a specific drug type, for example the synthetic opiate methadone shows cross tolerance with morphine, while *reverse tolerance* implies an increased responsiveness as a result of past consumption. The shortest time that must elapse before repetition of the dose has a similar effect to the one before is called the *critical interval*. Cocaine is chemically processed or metabolized much faster than heroin and therefore has a much shorter critical interval.

The health consequences of psychoactive drug use depend on the interaction of two sets of variables, namely the characteristics of the *drug* and those of the *consumer*.

The former include
- pharmacological properties;
- route of administration, i.e. oral ingestion, snorting, inhalation, injection (subcutaneous, intravenous or intramuscular);
- whether it is taken alone or together with other drugs or alcohol;
- level of purity and presence of adulterants;
- dosage level.

The latter include
- personality of the user;
- intensity or frequency of previous use;
- user's pre-existing state of health;
- social and economic circumstances of the user;
- the user's expectations of the drug's effects (see Part 2).

The existence of so many variables means that the effects of drugs can differ widely from one

* The authors acknowledge a debt throughout this chapter to UNDCP, The Social Impact of Drug Abuse, a Position Paper for the World Summit for Social Development (UNDCP/TS.2, Vienna, 1996).

individual to another. Some people may suffer no serious side effects from a single experiment with drugs while for others it may be the beginning of a lifetime addiction. Even a single experience can provoke an *acute* toxic reaction, while *chronic* effects come from the body's response to regular, long-term abuse. Either pattern of use can lead to dependence and to an impairment of the body's organs or its functions, or both. Unsupervised drug use may also have secondary effects in that it may conceal or delay recognition of genuine illnesses requiring treatment.

Drugs can alter mood and behaviour and create dependence. Consequences of their use depend on characteristics of both drug and consumer.

Estimates of *morbidity* and *mortality* are used to gauge the consequences of acute and chronic drug abuse. Morbidity indicators help us to understand the association of drugs with illness and disease by providing information on the numbers and frequency of treatment requests, drug-related emergency room incidents at public hospitals, hospitalizations and prevalence of communicable diseases relating to drug use. Mortality data tell us how many deaths are directly linked to the use of psychoactive drugs. Together these give us an estimate of harmfulness.

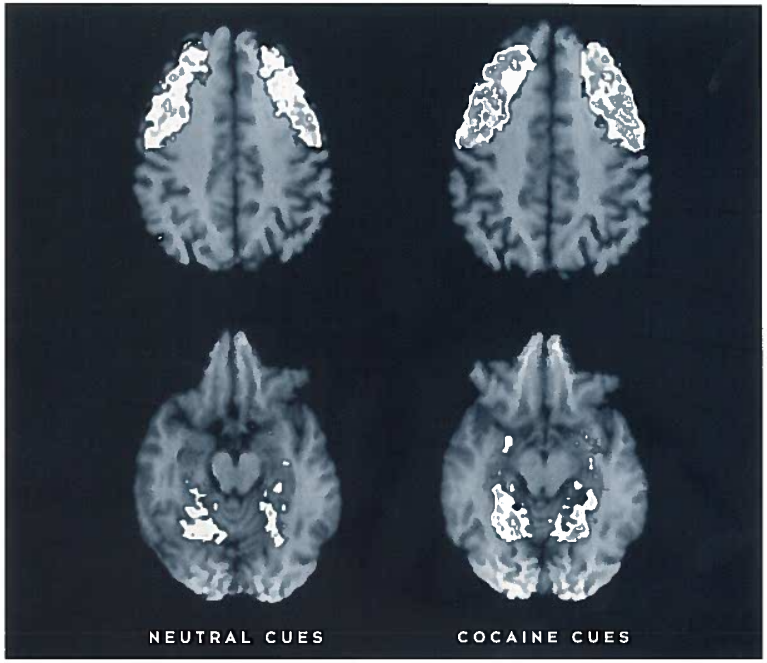
The term overdose is often applied in the case of drug-related mortality but in many cases death (or acute illness) may not be due to an excessive quantity of the drug but to an interaction with other psychoactive substances or with adulterants used by retailers to bulk out the dosage units. These impurities may do as much, if not more, harm than the drug itself. An important factor underlying all illicit drug use is that the consumer – the last buyer in what may be a long chain of distribution – is rarely able to verify the dosage or the purity of the purchase. The absence of quality control and the furtive conditions in which drugs are dealt and consumed may result in acute poisoning – heroin may be diluted with strychnine or supplied in an excessively pure dose leading to death; gullible youngsters buying drugs at a 'rave' party can have no idea of what chemical cocktail is about to bombard their brains.

A single experience can provoke an acute toxic reaction, chronic effects come from long-term abuse.

Drug types are described in various ways, depending on origin and effect. They can either be *naturally occurring, semi-synthetic* (chemical manipulations of substances extracted from natural materials) or *synthetic* (created entirely by laboratory manipulation). The principal categories are as follows:

1. Opiates: the generic name given to a group which includes naturally occurring drugs derived from the opium poppy (*Papaver somniferum*) such as opium, morphine and codeine, semi-synthetic substances such as heroin (the foregoing are *opiates* in the strictly correct definition); and *opioids* – 'opiate-like', wholly synthetic products such as methadone, pethidine and fentanyl. Opiates depress the central nervous system and are used therapeutically as analgesics (painkillers), as cough suppressants and against diarrhoea; in non-medical usage as euphoriants and as a means of reducing anxiety, boredom, physical or emotional pain. Heroin is often the opiate preferred by consumers because it is relatively potent, easily dissolved in water for injecting and penetrates the blood-brain barrier more quickly than morphine. Effects may last from 4 – 6 hours. Heroin can also be snorted, smoked or inhaled by the method known as 'chasing the dragon' whereby it is heated on foil and the fumes inhaled. The effects of methadone, which is usually taken orally, may last up to 24 hours.

It can happen that opiate dependence brings few physical complications other than constipation, but such cases are rare; studies of British heroin addicts in the 1960s showed that even when maintained on medically prescribed 'clean' heroin and supplied



Using pet scanning, investigators at the US National Institute on Drug Abuse showed increased activity in brain regions implicated in several forms of memory when human volunteers who abuse cocaine were exposed to drug-related stimuli. Cocaine abusers were studied under a neutral condition (left) and also in a test session in which they were presented with drug related stimuli, such as a video tape of cocaine self-administration. A volunteer who experienced a high degree of cocaine craving, when viewing the cocaine cues (right) shows brain activation in the dorsolateral prefrontal cortex (upper scans), which is important in short-term memory, and the amygdala (lower scans) as compared to activity in the neutral test session. The findings, which have implications for the treatment of cocaine addiction, suggest that a distributed network, which integrates emotional and other aspects of memory, links environmental cues with cocaine craving. (Photo and caption courtesy National Institutes of Health, Brain Imaging Section; see S. Grant, London E. D., Newlin, D.B., Villemange, V.L., Liu, X., Contoreggi, C., Phillips, R.L., Kimes, A.S., Margolin, A (1996): Activation of memory circuits during cue-elicited cocaine craving. Proc. Natl. Acad. Sci. U.S.A. 93: 12040-12045, 1996.

with needles they had a much higher death rate than the rest of the population. Frequent side effects of high doses of opiates are a reduction in sexual drive and fertility, resulting in impotence in men and severe irregularities in the female menstrual cycle, as well as mood instability, lethargy and anorexia. Tolerance develops to some though not all the effects of opiates. Withdrawal symptoms are generally not life-threatening (if the individual is otherwise healthy) but are extremely unpleasant for a period of 48 – 72 hours, resembling a particularly bad bout of influenza.

Some of the most severe effects of heroin abuse stem less from the drug itself than from unhygienic injecting practices which cause hepatitis, HIV and AIDS and the wider diffusion of these diseases by sexual contact (see 3.4). It is generally believed that

injecting heroin users are more severely dependent than inhalers, partly because injection is the least safe but most cost-effective way of using an illicit drug. It is also possible to take more of the drug by injection – inhalers tend to fall asleep before they reach the point of overdose. Switching between different routes is quite common, however, and may well be prompted by health considerations.

2. Central Nervous System Depressants (in addition to opiates): include barbiturates, non-barbiturate depressants and benzodiazepines; they are also referred to as sedative-hypnotics. They can be used therapeutically as anaesthetics, anticon-

Heroin withdrawal symptoms are grim - but not life-threatening.

vulsants, in the treatment of tension and anxiety, insomnia and some psychiatric illnesses. The first major type of drug in this group to be manufactured was the barbiturate group, synthetic pharmaceuticals which since the 1960s have largely been replaced therapeutically by benzodiazapines such as diazepam (Valium). Benzodiazapines and non-barbiturate sedatives such as methaqualone appear regularly on the illicit market and are used for sedation and for pleasurable intoxication, often in combination with alcohol.

Barbiturates such as phenobarbital and secobarbital are powerful central nervous system (CNS) depressants; they can cause excessive drowsiness and thereby put the user at risk if driving or operating machinery. Abuse may lead to respiratory problems such as bronchitis and emphysema and at high doses can cause unconsciousness or death through respiratory failure. Sudden withdrawal can also cause death. One of the greatest dangers of the barbiturate group is that as physical tolerance increases, the proportional difference between an effective dose and a lethal dose decreases. For this reason the barbiturate user is especially vulnerable to overdose.

Abuse of benzodiazepines can have adverse consequences for the cognitive functions such as memory and concentration, while tolerance and dependence can also result, even at therapeutic doses, if taken over a long time. Withdrawal symptoms include anxiety, insomnia and restlessness. Although considered to be much less dangerous than the barbiturates, the recent trend of injecting benzodiazepines has caused particular concern because the drug does not dissolve in the blood stream.

3. Central Nervous System Stimulants: include naturally occurring plants such as coca (*Erythroxylum coca*), *khat* and betel nuts (which are not under international control), products extracted from the leaf of the coca bush – coca paste, cocaine hydrochloride and crack cocaine – and wholly synthetic substances in the form of amphetamine and amphetamine-type compounds. Cocaine has some therapeutic value as a local anaesthetic, while some synthetic stimulants are used as anorectics (slimming pills), in the treatment of narcolepsy and of children suffering from Attention Deficit Disorder (ADD). CNS stimulants are taken for non-medical purposes to elevate mood, to overcome fatigue and to improve performance. The effects of cocaine last from a few

"Chasing the Dragon". This young boy has been an addict since being treated for the pain of a chronic medical condition with opium. Photo: United Nations.

Khat.
Photo: UNDCP.

minutes to less than an hour whereas with amphetamine-type stimulants (ATS) the duration may be of several hours. Cocaine hydrochloride can be injected, but more commonly it is snorted, whereas cocaine freebase (crack cocaine) is usually smoked. ATS can be taken orally, injected, smoked or snorted.

Cocaine abuse may result in severe mood swings such as euphoria, dysphoria and, in extreme cases, a condition known as acute cocaine psychosis, involving hallucinations, paranoia and debilitating anxiety.[1] Organic damage can also occur – cocaine is a vasoconstrictor, thus it raises blood pressure and can provoke heart attacks by increasing oxygen demand in the heart whilst simultaneously restricting blood flow, reducing the body's ability to deliver oxygen.[2] Pregnant women who consume CNS stimulants deprive the foetus of blood and thus of nutrients and this may result in spontaneous abortion, low birth weight or neonatal complications. Early disorders of this kind may be carried through into childhood and adolescence (see 3.1).

Some CNS stimulants have hallucinogenic and communication-enhancing effects such as MDA (3,4-methylenedioxy-amphetamine) and MDMA (3,4-methylenedioxy-methamphetamine) and are commonly taken to heighten emotional and sensory perceptions at parties and dance sessions. MDA and MDMA are usually taken orally but can also be injected. The abuse of hallucinogenic stimulants may cause a variety of psychological problems such as confusion, depression, anxiety and paranoia. Physical consequences include muscle tension, nausea, blurred vision, faintness, chills or sweating – symptoms which in many respects are similar to those of heatstroke. Overcompensation by drinking large quantities of water sometimes causes excessive rehydration and can lead to death. For several days after use muscle pain, fatigue and depression are common; long-term use may damage the liver, brain and heart. The recent emergence of ecstasy injection has added a new and much more harmful dimension to the drug which was previously considered a 'clean' drug precisely because it was taken orally.

As with the opiates, stimulant-related morbidity may also be a function of the dose, frequency of use and administration route. Snorting cocaine can lead to septal necrosis (the erosion and death of tissue between the nostrils) and atrophy of the nasal mucus; smoking crack cocaine is associated with a risk of burns from flammable materials, with chronic bronchitis and with searing of pulmonary tissue. Crack smoking is thought to be associated with higher levels of dependency than cocaine snorting, but experts disagree as to whether it leads to more or less dependence than injection of cocaine hydrochloride.

Coca/cocaine derivatives.
Photo: UNDCP.

The withdrawal symptoms associated with intensive stimulant abuse are unlike those related to opiates in that the body does not become physiologically dependent, but they may produce a state of acute unease or discomfort, depression, fatigue, insomnia and an intense desire for more of the drug. These symptoms are generally worse for amphetamines than for cocaine, though they may well occur after a cocaine or crack 'binge' that lasts several days, when the user may neither sleep nor eat.

There is no single definition of cocaine dependency.

There is no consensus in the scientific literature on a single definition of cocaine dependency or of cocaine tolerance: there is some evidence of individuals developing a tolerance for cocaine but in general this is short-lived, such that users who abstain even for short periods will start with low doses.[3] Tolerance quickly develops for amphetamine, however. Psychological disorders and dependence are more likely to develop more rapidly among stimulant injectors since (as with the opiates) injecting use implies a pattern of regular, frequent use.

Cocaine overdoses most commonly occur when the user overestimates his/her own tolerance to the drug, or if other drugs are taken at the same time. Death from respiratory arrest can occur after large doses, especially if taken with a depressant drug. Other fatalities occur when sealed packages of cocaine (or heroin) – transported by drug couriers within their own body cavities – burst in transit.

4. Hallucinogens: include naturally occurring substances such as psilocybin (in magic mushrooms) mescaline (in peyotl); semi-synthetics such as lysergic acid diethylamide, (LSD) and synthetics such as phencyclidine (PCP). Apart from some traditional uses (see Part 1, Box 1A) and rarely, for therapeutic use in psychiatry, hallucinogens are taken illicitly for their mind-altering or 'psychedelic' effects. Even in small doses LSD causes perceptual distortions of time and place, visual hallucinations and synaesthesia (a merging of the senses such that sounds are 'seen' and colours are 'heard'). In comparison to the powerful sensory distortions, the physiological after-effects are relatively slight, but may include dizziness, disorientation, anxiety, depression and distressing flashbacks. Prolonged adverse reactions are usually linked to existing mental illness.

PCP produces euphoria but this is unlike that of opiates or stimulants; use is often accompanied by feelings of unreality, distortions of time and space, self-damaging behaviour and belligerent paranoia. Hallucinogens are usually taken orally. Repeated administration reduces the effect of the drug but physical dependence is not known to occur. Effects last up to 12 hours.

5. Inhalants include solvents in glues and gases found in aerosols and fuels; they are widely available and often exempt from national or international control because of their extensive commercial use. Vapours or gases are inhaled through the nose or mouth and absorbed by the linings of the lung. The effects, which are felt immediately, last 15 – 45 minutes and range from light-headedness through euphoria to giddiness and nausea. Because oxygen intake is reduced, breathing and heart rate are depressed and can result in brain and respiratory damage. Attempts to intensify the experience by inhaling through a plastic bag may lead to suffocation or heart failure.

Hallucinogenic mushrooms.
Photo: UNDCP.

Peyote cactus.
Photo: UNDCP.

Cannabis Sativa.
Photo: UNDCP.

6. Cannabis is consumed as marijuana – the dried flowering tops of the Cannabis sativa plant; or as hashish – resin from the plant; or as an oil extracted from the resin. These preparations are generally smoked, often mixed with tobacco in a cigarette or 'joint', but they can also be ingested orally. Cannabis is a sedative, but it also has hallucinogenic effects which may last up to several hours. The principal psychoactive ingredient is delta-9-tetrahydrocannabinol (THC), and THC levels vary widely within the various strains of cannabis plants now grown. THC is soluble in fat, metabolizes very slowly and, since the brain is largely made up of fatty substances, it may remain in the body for up to one month after consumption. When smoked, the drug is absorbed quickly into the bloodstream and reaches the brain within seconds. Depending on the quantity and frequency of consumption, cannabis may impair motor coordination, shorten attention span, and modify perceptions of time and space. In low doses it has a relaxing and mood enhancing effect but in higher doses and/or in certain individuals it can cause anxiety, panic or paranoia. Smoking the drug carries a similar, and possibly aggravated series of risks to those associated with cigarette smoking and respiratory cancers, bronchial and cardiovascular problems and the increased likelihood of foetal and neonatal complications.

3.1. DRUGS AND THE FAMILY

The health consequences of drug abuse as described above will tend to fall first, and most acutely, on the family of the drug abuser. It is the family to whom the dependent user is likely to turn in times of emotional or physical distress; to whom he/she may turn for financial assistance, advice or child support. The

family or individual members can be associated with attempts to overcome drug abuse and with the eventual outcome of that struggle, whether positive or negative. The family can also be part of the contributory factors to drug abuse, as was discussed in

Dysfunctional family life and drug-taking often go together.

Part 2. Dysfunctional family life, rather than poverty, seems to be one of the most significant factors in predisposing an individual to take drugs in countries as far apart as Mexico[4] and Ireland.[5] Conversely, the existence of a stable, supportive family life is frequently, though by no means always, thought to be a vital 'protective factor'.

In addition to the potential damage to an individual's health from drug abuse, the harm done may extend to those closest to the drug taker, namely his/her spouse, parents, children or siblings. The harm to others may be health-related or have a debilitating effect on family life in a variety of other ways.

As mentioned above, a pregnant woman who consumes drugs may unwittingly cause harm to the foetus; she may stop on becoming aware of her condition although it is still possible some harm may result; if she cannot or will not give up, it is more likely that the consequences will carry through to problems during and after the birth. Attempts to pinpoint precise health effects on newly born babies of drug-dependent women are hampered by other circumstances – these are described in 3.2.

The first days and weeks after the birth of a baby are a period when the infant requires maximum attention. If either or both parents are under the influence of drugs, or are distracted by the search for them, they may be less sensitive to its needs and find coping with the baby more stressful. This situation could be exacerbated by sleeping and eating difficulties in the newborn which have been associated with maternal drug use, and it could also inhibit the intimate bonding process which contributes to a stable future for a child. Child neglect may evolve into child abuse. Chronic drug abuse may lead to children being adopted, abandoned or taken into institutional care. A study of children of heroin-abusing parents in Madrid, Spain[6] showed that 37% were living with someone other than their parents; in a comparable study in Geneva, Switzerland[7], more than half such children were living with someone other than their biological father or mother. The gradual disappearance in many countries of the extended family of several generations living under one roof may make the offspring of drug abusing parents even more vulnerable to traumatic disruption. Moreover the consumption of drugs in combination with alcohol is associated with irritability, aggression and violence, all of which may be off-loaded on to family members.

The complex relationship of drug use to violence in the USA is discussed by Goldstein (Box 3B). The purely pharmacological effects of drugs are often so intertwined with the circumstances of use that it is hard to draw any hard and fast conclusions. The drug type most associated with pharmacologically induced violence is cocaine, although research suggests this is valid only when use is combined with alcohol. A Canadian survey of 145 cocaine users reported that about one in six (17%) admitted actually becoming violent or aggressive after using cocaine. Approximately one in three frequent users reported *feelings* of aggression compared with 10% of infrequent users. The study suggested that aggression and paranoia lie along a continuum of cocaine reactions, the differences being positively correlated with the combined use of alcohol and cocaine, and negatively correlated with social class.[8] No systematic research links the pharmacological effects of crack cocaine use with an increase in violent behaviour, although a 'crash' or psychological depression may well follow a crack binge.

Parents who misuse drugs could unwittingly be setting a model which their children will follow in the future; as Part 2 shows, parents' attitudes towards drugs and their own drug-using behaviour can constitute strong influences. Children who are exposed to illicit consumption, production or distribution at an early age through adult contacts may be more likely to experiment themselves. This trend is frequently demonstrated by higher prevalence rates in large conurbations where illicit

drug-related activities are much more visible. The populations of run-down inner cities, where an informal or illegal economy may be an important means of survival, are more physically exposed than the inhabitants of rural areas or of well lit, tranquil suburbs where drugs may be as widely available but illicit commerce and use are better hidden.

Adult relationships may also suffer from the drug-abusing habits of one or both partners, such as depletion of common financial resources, increased health costs, employment problems and emotional stress. One partner may be pushed into providing for a whole family if the drug abuser opts out of his/her responsibilities, a situation of disequilibrium which may provoke depression, stress, resentment and may even lead to the non-drug-using partner looking to drugs or alcohol for solace. The family may end up being less well fed, clothed and housed. In poor families money spent on drugs may exceed that on food and therefore, though it cannot be said that poverty *causes* drug abuse, there can be no doubt that the consequences of drug abuse can be infinitely more wretched for families in precarious or poverty-stricken circumstances.

The sexual relationship may also be affected adversely, and affection between partners may degenerate into conflict with the possible disintegration of the family unit. There is a serious risk of transmission of the HIV and other blood-borne viruses to partners and children of injecting drug users, and of contracting sexually transmitted diseases (STDs) if, for example, the drug user uses prostitution to help pay for the habit. Another of the many ways in which illicit drug habits are maintained is through petty crime and theft, with the user's family and friends among the victims (see 3.5).

3.2. GENDER ISSUES

However new research techniques and a greater attention to gender issues have caused a reassessment of the 'traditional' statistical picture. The result is a more informed and at the same time more alarming scenario which acknowledges that a significant share of female drug problems does not show up in official statistics, that females have become increasingly involved in all forms of drug-related problems and that they are likely to suffer worse consequences than males as a result of this involvement. The 'new' situation probably reflects both a genuine increase and the heightened awareness that improved research methods have brought.

Female involvement in drugs can loosely be divided into three categories:
(1) Female non-drug users with drug-abusing families or partners;
(2) Females who consume drugs illicitly;
(3) Females who are involved in the production and/or distribution of drugs.

(1) Women are often mothers, wives, siblings or offspring of drug-abusing males and help to shield them from the consequences of their abuse. In doing so they may experience social, health and economic disadvantages which can include domestic violence. In trying to cope they may themselves be drawn into alcohol or drug abuse. A woman living with a drug-dependent spouse may be the sole supporter of a family. Some women may trade sex to support their partner's drug habit, and are thus at risk from sexually transmitted diseases (STDs). The HIV virus is more readily transmitted sexually from an infected male partner to an uninfected female than the other way around.[9] Data collected from women in Saõ Paolo, Brazil, whose sexual partners used

Women are increasingly involved in the illicit drug cycle.
Photo: UNDCP.

injection drugs, showed an increase in HIV seroprevalence from 33% to 82.4% between 1984 - 89.[10] Women in developing countries may be further disadvantaged by having less access to information and education about drug- and sex-related diseases.

(2) Drug-using women are likely to be more stigmatized than their male counterparts because their activities are regarded by society as 'double deviance': taking drugs is seen as both deviance from accepted social codes of behaviour and deviance from the traditional expectations of the female as wife, mother and family nurturer.[11] Female drug abuse may cause more disruption to family life, despite its lower prevalence, because legal and social consequences tend to be more severe: many countries do not have drug treatment facilities for pregnant or HIV positive women or make provision for childcare, even though many drug-using women with children are single, separated or divorced; the support of community institutions which habitually provide shelter and financial assistance to single mothers may be withheld. Women may not come forward for treatment for fear of hostility from medical authorities, and because children would be more likely to be taken into care on grounds of the mother's drug abuse than of the father's. Lack of advice or treatment can only lead to the drug problem worsening.

Drug-taking women are seen as 'doubly deviant'.

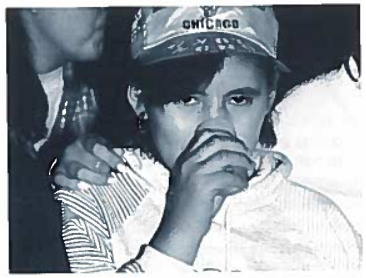
There is other evidence that drug abuse causes worse problems for females. Drugs seem to be more functional in a sexual relationship for women than for men: females are more often initiated into drug use by males than vice versa and may be dependent upon the male for continued supplies.[12] The lives of women who consume drugs regularly tend to become more absorbed and conditioned by the habit and increasingly isolated from those of non-users, especially if, by trading sex, women alienate themselves even more from their existence as wife or mother. This progressive slide into the drug culture identity has been termed *role engulfment*.[13]

A common explanation for a genuine rise in female drug abuse problems - as opposed to the rise that can be attributed to recent gender-specific research methods - is the global social and cultural revolution which has placed on top of the woman's traditional role of mother and homemaker, the equally onerous burden of economic provider. Emancipation and greater economic independence are generally considered positive gains but they can impose extra levels of stress when they make conflicting demands on time and energy.

The gradual erosion of gender stereotyping has been felt in most countries around the world such that, even in societies traditionally protective of their young women, there has been a relaxation of former restraints. In many countries nowadays adolescent girls enjoy almost as much freedom of behaviour as boys, and drug consumption patterns reflect this (see 3.3).

A study of women and drugs in Jamaica suggests that the removal of norms and taboos which drew clear boundaries between activities or responsibilities considered either 'male' or 'female' has also lifted a layer of protection which isolated them from involvement in drugs:

"The recent increasing use of drugs by women in Latin America and the Caribbean has been attributed to various proximal antecedents such as



Young adolescents are particularly vulnerable to drug abuse.
Photo: UNDCP.

Table 1. Core country data on male/female ratios related to drug use.

	Australia	Colombia	Italy	Pakistan	Sweden	Thailand	UK	USA
1. Lifetime prevalence	1.3:1	1.2:1	-	-	1.6:1	-	1.5:1	1.2:1
2. Annual prevalence	1.5:1	0.7:1	-	-	-	-	2.0:1	1.5:1
3. Monthly/daily prevalence	-	0.9:1	-	-	3.4:1	-	-	1.7:1
4. Persons in treatment	2.4:1	-	5.4:1	99:1	3.3:1	-	3.0:1	2.5:1
5. Injecting drug users	2.1:1	-	-	-	-	-	3.3:1	2.2:1
6. Emergency room clients	1.2:1	-	3.7:1	-	-	-	-	1.1:1
7. HIV/AIDS cases	-	-	3.8:1	-	3.9:1	6.0:1	6.2:1	4.2:1
8. Seropositive IDUs	2.4:1	-	3.2:1	-	2.4:1	22:1	2.6:1	2.7:1
9. Minor drug law offenders	5.5:1	-	12.9:1	-	-	6.4:1	8.6:1	4.1:1
10. All drug law offenders	5.2:1	16.9:1	10.7:1	-	5.8:1	5.2:1	9.3:1	7.2:1
11. Drug-related deaths	3.7:1	-	8.1:1	-	3.6:1	-	4.6:1	3.1:1

Sources: see Part 7 Core Country Profiles.
Notes: Figures correspond to the latest data available. The Pakistan treatment figure and seroprevalence among Thai IDUs are based on city reports. Colombian figures have been produced by a combination of two prevalence figures, thus the amount of double counting for each sex is not known.

simple exposure and access to the substance, lack of information or misinformation, peer or partner pressure, the need to escape from or cope with a reality of poverty, oppression, domestic violence and childhood sexual abuse. While all of these factors may have a bearing on the problem, each is linked in some manner to the changing roles and responsibilities of women. The traditional sex-linked norms pertaining to drug consumption by women can no longer be counted on to protect women from drug abuse. Neither can the traditional economic structure be counted on to insulate women against commercial drug activity."[14]

Problems with close relationships and family, psychological and physical problems were all given as factors which contributed to and were exacerbated by substance abuse in a study of female drug problems in the Czech and Slovak Republics.[15] Elsewhere in Eastern Europe, social and economic upheavals and the introduction of a market economy in a state-controlled system, where unemployment did not officially exist, have brought many benefits, but employment competitiveness and a more pressurized existence may have caused stress levels to rise accordingly.

To what could be called the 'normal' insecurity and stresses of modern living, families in many nations suffer from exceptional hardship brought on by war, famine, refugee status or other life-threatening circumstances. During periods of armed conflict women are often left alone to support a family; constant anxiety and bereavement take a heavy toll. Not surprisingly, drugs may be seen as a source of temporary relief.

Women use tranquillizers twice as much as men.

Females of course have no monopoly on stress; nonetheless, one of the clearest correlations between gender and drug abuse is the recourse, especially by women in their middle or elder years, to sedatives and tranquillizers. The trend is worldwide, and seems to be growing. In an overwhelming majority of cases these drugs are often medically prescribed, though theft and forgery of prescriptions and diversion to the illicit market are also common.

A North American study found that physicians prescribe psychoactive drugs 2.5 times more often to women over 60 than to men of the same age group;[16] in Guatemala five times as many women take tranquillizers as men; psychotropic drugs are prescribed for women at nearly twice the rate for

men in Brazil; in Jamaica the consumption of pain killers is almost twice as high among females (35%) as among males (18%).[17]

The core country data in Table 1 show that female involvement in illicit drug use is generally at lower levels, while more intensive use, treatment for drug abuse, drug-related crime and drug-related mortality are proportionately higher for males. In general, male and female drug use patterns seem to be more even in industrialized countries, where women are also more emancipated. In Colombia, the share of female users of any illicit drug is higher than that of males, mainly due to an extensive use of depressants (tranquillizers, sedatives, barbiturates) without prescription, especially among 26 - 44 year-olds of relatively high socio-economic status. The higher figures for drug-related mortality and for AIDS are indicative of riskier drug use and sexual behaviour patterns among males than among females. The two Asian nations of the core country group do not report gender for several of the variables, either because the female share is minimal or because female drug abuse is largely undetected. In Thailand female participation in offences which include trafficking is higher than for minor drug law offences of possession or small-scale drug sales. The same pattern can be found in Italy and in Australia.

Poverty and intimidation drive women to become drug couriers.

(3) The 'big business' of illicit drug trafficking is a male-dominated activity at its upper echelons, although women are frequently involved in cultivation, processing and street dealing. Women produce 80% of the agricultural products in rural Africa and are the predominant harvesters of opium in Asia and coca leaves in South America. The processing of raw drug crops has increasingly been shifted to locations near the crop production sites, leading some of the women traders to become drug traffickers and sellers.

A study of New York City cocaine markets in the late 1980s[18] confirmed female involvement at retail level as part of a "diversified income strategy" which included legitimate activities and consensual crimes such as prostitution. This was a period when distribution channels were being expanded to meet the growing demand for cocaine, increasing the availability of the drug and allowing new investors to enter the market. Female entry into drug selling was facilitated by changes in the social and economic conditions in inner cities which brought about an increase in female-headed households and, at the same time, female involvement in the informal, illegal economy.

More recently, crack cocaine markets in the USA have been particularly associated with high rates of sexual promiscuity and with transactions entailing sexual debasement and abuse; the greater the female involvement in crack cocaine use, the higher the rate of prostitution seems to be.[19] The violence associated with crack markets tends to act as a deterrent to female involvement, whereas prostitution offers, relatively speaking, a greater level of autonomy.

Dire economic circumstances and the growing incidence of intimidation on the part of traffickers in developing countries have led to the recruitment of many women as drug couriers. Over 50% of couriers arrested at London's Heathrow airport between September 1991 and April 1992 were female; the usual profile of a female drug courier is a woman of child-bearing age, single or married with children, unemployed, a trader or menial worker and financially impoverished.[20] Usually female drug couriers are not drug users themselves and do not understand the significance of their assignment. Of all the women arrested at New York's JFK airport between 1986 and 1990 and sentenced to life terms in prison for the most serious class of drug felony, 96% had no previous criminal record.[21]

Unfortunately, however, financial temptations are most likely to outweigh moral considerations when the disparity between criminal income and legitimate earning potential is widest: a female drug courier in Jamaica earning a monthly salary of US$ 15 - 30 as a domestic servant can receive US$3000 for making a round trip to the USA.[22] For an unemployed woman or agricultural worker in West Africa with a large family to support, what seems like a low-risk adventure holds the promise of wealth beyond her wildest dreams.

3.3. DRUGS AND YOUNG PEOPLE

Some of the possible reasons for which young people begin illicit drug use were discussed in Part 2. With the young, as with all consumers, the range of consequences will vary according to the pharmacological properties of the drug, dosage, route of administration, and circumstances of use. A significant minority of young people experiment with illicit drugs during a phase of rebellion or as part of a process of seeking identity and independence, and give up spontaneously when a particular stage of maturity has been reached without any permanently damaging consequences. But because the young are less able to evaluate the dangers and judge the likely consequences of their behaviour, their lack of caution may make them more vulnerable to dependence. Most studies of drug dependence suggest that there is a correlation between problematic or dependent drug use and age of initiation:[23] the earlier illicit drug use of any kind begins, the more likely it is that the individual will take other types of drugs and will consume them more frequently, with correspondingly more severe long-term consequences for health, for educational and emotional maturity and for the likelihood of creating a stable adult life. Illicit drug use in young people is associated with other 'risk-taking' behaviours such as alcohol abuse, unsafe sex and higher than average levels of delinquent behaviour (see 3.5). Later, the wish to return to education and to a non-deviant lifestyle may be barred by the health consequences of dependence, by a criminal record or by the economic or educational impossibility of recouping lost ground. Even more than with adults therefore, it is reasonable to assume that the effects of powerful drugs upon young, impressionable individuals who have not developed their own 'coping mechanisms' or problem-solving resources, will be proportionately greater, and may delay or even prevent the evolution of such skills.

Youthful drug use may establish a pattern with life-long consequences.

Children experience the turmoil of conflict, economic recession and rapid socio-political transformation as part of family life, but, without the wisdom to interpret change, may become its victims, especially if their own parents have difficulties in coping. Generation gaps may widen if children grow up in a different culture from their parents. Young people may leave a rural home to look for a better life in the city, or else migrate to countries idealized through the glossy images of films, soap operas and commercials, and end up destitute. In Frankfurt an organization set up to help young male prostitutes reported that of its 200 clients, 30% were aged 15 - 20, 40% between 20 and 25. Around 30% were non-German, a total which was steadily being pushed up by an influx of young men from Poland, Romania, Russia, Slovakia, the Czech Republic and the former Yugoslavia. Of the 200, most used drugs and 85% were homeless.[24]

Youngsters can be lured by criminals into illicit drug distribution networks on account of their judicial impunity, but they may see such activities as glamourous and exciting, as well as remunerative.

Young Norwegians have agreed to carry *khat* illegally to Britain on the basis of an expenses paid trip; Jamaican youths are used in cannabis trafficking. In the southern Italian city of Naples, there are children living in the poorest quarters of the city who are considered resources to be exploited economically - raised from the age of 10 to deal in drugs and contraband cigarettes. The 'typical' profile of the juvenile drug dealer in Naples comes from a dysfunctional family, has had little or no schooling, comes from the metropolitan suburbs or from the dilapidated city centre and has spent prolonged periods in institutional care.[25]

UNICEF estimated in 1990 that there were around 100 million street children around the world, of which 40 million were in Latin America, 25 - 30 million in Asia and more than 10 million in Africa.[26] Most spend the greater part of the day on the street but have a family and somewhere to sleep; an estimated 5% are completely abandoned. Of the street children population, boys predominate (71 - 97%) but girls may suffer worse consequences

through sexual exploitation and transmission of sexually transmitted diseases, including HIV/AIDS. Drug problems are sometimes, but by no means always, the precipitating factor that puts children on the streets: in the Philippines rapid urbanization, natural disasters and political unrest are contributory factors; in some African countries such as Zambia the spread of AIDS has left many children orphaned or abandoned; one estimate suggests that 16 million children could be orphaned by AIDS by the year 2015.[27]

Urbanization and the erosion of traditional social and family structures in many African countries have contributed to widespread feelings of alienation, while subsistence agriculture has been abandoned for the illusion of a better life in the cities. Urban poverty may lead to family disintegration, the neglect or desertion of children or to the children themselves leaving home and taking to the streets. This has happened in Lagos, for example, which has some 5,000 street children. They may have parents who saw drugs as a temporary relief from their troubles, and they too may begin to consume or to sell drugs or both. In this way a vicious circle closes around them. The drug culture offers "counterfeit satisfaction and for some, a dangerous means to a livelihood."[28]

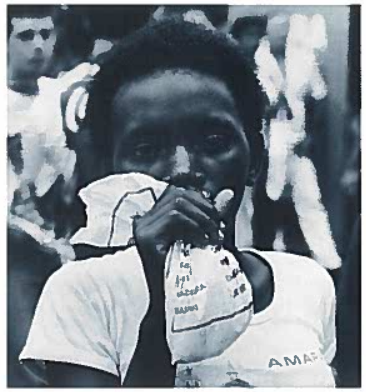
In Rio de Janeiro the drug culture is woven inextricably into the lives of street children, who take drugs as a temporary means of escape from the wretchedness of poverty, physical illness, pain and hunger. Generally the drugs used are those most

The effects of powerful drugs upon impressionable youngsters without their own 'coping mechanisms' will be proportionately greater. Photo: UNDCP.

readily and cheaply available: inhalants, alcohol, cannabis, coca paste or crack. The smoking of *basuco*, a crude form of coca paste made with hydrochloric/sulphuric acids, has particularly devastating effects on the lungs. At the end of the 1980s many street children in Brazilian cities were taking two or three drugs simultaneously and very intensively. In 1987, 44.5% used drugs on a daily basis, though the percentage had dropped to 20.4% by 1989.[29] Of adolescents held in juvenile detention centres in Saõ Paolo, Brazil, 70% admitted to having consumed or trafficked in drugs, generally crack. Of the detainees, 59.8% committed robbery or theft, in part carried out to buy drugs.[30]

As if involvement in drugs were not enough, they are also exploited by terrorist and other criminal organizations to commit a variety of crimes, for pornographic purposes, for illegal adoption or for illicit organ transplants. Once caught in the trap of degradation and crime, children may never be able to climb out.

As WHO[31] reports,
"The universal availability of volatile substances, such as petrol, glue and solvents, make this a particularly popular choice in developing countries and remote communities, with use starting in children as young as five years. On top of their multiple health problems, their drug use adds a further immense burden. They experience the direct effects of their drug use – the brain damage from solvents and petrol; the psychosis from cannabis, amphetamines and hallucinogens; the violence with alcohol intoxication; and the risk of AIDS and hepatitis B from needle sharing. They also experience the consequences of a lifestyle which surrounds drug use – the violence; the sexual exploitation; the crime; the scarce educational, recreational and vocational opportunities; the isolation and dislocation from their peers and families; and the lack of shelter and security. ... for many, the drug culture and economy become an integral part of their lives. In some communities, street children survive by producing drugs, acting as couriers, working as dealers and providing protection and surveillance for the local drug syndicate. Hierarchies exist where young street children are recruited into the drug business, determining their status on the streets and ensuring that their future lives are directed by a drug culture. If they



Glue sniffing is common among street children. Rio de Janeiro. Photo: © Edveraldo Carneiro – IT/WCC.

survive the violence inherent in the drug world, they may at some time head a drug syndicate within their own neighbourhood. It is often those who reach the top of the hierarchy who afford protection to the young street children, the protection which they so desperately seek. For these children, the street children culture is very much a drug culture."

Nor are street children found only in the developing countries: they also roam the inner city ghettos of industrialized countries such as the USA, Canada, Australia and Italy. An Australian survey of 82 street children aged 14 – 19 reported that on average they had experimented with 10 different psychoactive substances; 45% had tried heroin.[32]

Part 1 demonstrated the continually evolving nature of the drug phenomenon, and this is especially true when applied to a generation which renews and outgrows itself within a period of five to seven years. But perhaps the most striking aspect to emerge from studying drug-abuse trends among young people is the increasing *homogenization* of drug behaviour patterns around the world – that is, the gap between patterns of drug taking in western industrialized countries and those in developing countries, or those in transition, seems to have narrowed. While western youth continues to provide a model that other nations follow – in drugs as in many aspects of socio-cultural behaviour – the basic trends seem remarkably similar. This is evident in the pervasiveness of a consumer-driven youth drug culture, in the falling age of first drug use and in the increasing availability of drugs and different drug types, all of which point to a 'normalization' or apparent acceptability of drug-taking behaviour by youth around the world.

The growing popularization of drugs such as ecstasy, methamphetamine and other synthetic stimulants in Western Europe, North America and in some countries of Eastern Europe and South-East Asia provides a clear example. Drugs are just one ingredient of an irreverent, image-conscious culture which embraces music, fashion, films, and a language which is incomprehensible except to those in the know. In parts of Western Europe ecstasy comes second only to cannabis in popularity. Unlike heroin injection which is rejected as dirty and old-fashioned, oral ingestion of synthetic stimulants and hallucinogens is seen as fashionable,

Young people around the world see drug-taking as normal.

safe and clean. So far, the mortality and morbidity effects of these drugs are only just beginning to show up in health statistics.

According to research carried out by the Pompidou Group of the Council of Europe[33], ecstasy users can be characterized into three broad categories:
(a) the older, generally well-educated, infrequent user;
(b) the moderately frequent users, attracted to the drug by its sensual contact aspects;
(c) the younger, poorly-educated, frequent users of the drug.

Users in the third and most risk-prone category may often compound the consequences of ecstasy use by mixing it with other drugs and with alcohol; these 'cocktails' with unknown adulterants have potentially devastating effects which the consumer cannot possibly predict. There is also a risk that, even without physiological dependence, a series of

expectations revolves around the pleasurable experience of the drug which cannot be satisfied without it, and that young people who begin at an early age to seek a solution to problems or to boredom through drugs will continue to do so. According to the Pompidou Group researchers, "It is particularly risky for young people who present self-esteem problems (narcissistic disturbances) and are constantly searching for recognition and a positive reflection of their person to suppress feelings of self-doubt. The techno scene is really anything but easy or friendly, it is elitist and very performance oriented. You are not valued for who you are but rather for performance: having good looks, being interesting or profitable to the party, etc. Therefore, by using drugs like ecstasy or speed *[amphetamine]* which artificially increase self-esteem, the initial condition of self-doubt may easily be reinforced or remain as it was."[34]

The age of initiation into illicit drug use appears to be falling in many parts of the world, particularly in countries which have recently opened up politically and economically. There may be a correlation in that the relaxation of travel and trade restrictions has facilitated illicit traffic as well as licit, with increased drug abuse as an unfortunate consequence; in addition, some countries have only publicly acknowledged the existence of drug-related problems in the last few years, and the collection, analysis and diffusion of drug-related data have just begun.

The age of initiation appears to be falling.

In Pakistan it is reported that the share of those who started heroin use at 15 – 20 years has doubled to almost 24% of those surveyed;[35] in China drug use is going up while the age of new users is going down.[36] A survey of problem drug users in the Czech Republic showed that 37% of new problem users were 15 – 19 years of age; similarly, in the Slovak capital of Bratislava almost 50% of registered drug addicts were also in the 15 – 19 age group. Compared to the mid-1970s, when the average age of initiation into drug use in Bulgaria was 18.5 years, a decade later it was 14 – 16 for heroin, and 12 or less for volatile substances.[37]

A recent survey of 14 – 16 year-olds in north-western England,[38] based on confidential questionnaires completed on three successive years by the same respondents, showed that nearly three fourths of the sample had been in situations where drugs had been available, half had tried an illicit drug and more expected to do so, and one in five was a current user. At the age of 14, thirty-eight percent of girls had used an illicit drug at least once, with the figure rising to 49% at the age of 16. In contrast, thirty-five percent of boys had used drugs at 14, fifty-two percent at 16. One of the most notable changes was the increased percentage of those who, on being offered LSD, had used it on at least one occasion. Over the three-year period this "uptake" rate rose from 36% to 43%. Gender differences did emerge from the survey, but in a complex form: young females tended to choose from a smaller repertoire of drugs, consume in smaller quantities and less frequently, and attribute different meanings, motivations and consequences to their drug use.[39] Ethnic differences were also significant: the fact of being Asian, and in particular Asian Muslim, was associated with relatively low rates of trying illicit drugs. Asian youths had a lifetime prevalence of 14% which rose only to 17% by age 16, compared to the white respondents' rate of 38% and 52% respectively. Overall, the most significant aspect of the study, according to the researchers, was that, " ... this cohort of young people demonstrates high levels of drugs knowledge and drugs involvement which would have been unthinkable a decade ago".

In the USA use of cannabis and cocaine among eighth grade students doubled between 1991 and 1994, with average age of initiation into cannabis use at 13.9 years. Also in the USA there were significant ethnic differences: the Monitoring the Future surveys of eighth to twelvth grade students showed that Hispanics had the highest lifetime rates of cannabis use at eighth grade (23.3% compared to 12.9% for whites and 13.2% for Afro-Americans) whereas twelfth grade whites had the highest prevalence (with 38.3% compared to 36.6% for Hispanics and 29.4% for Afro-Americans). Nearly one quarter of all high school students surveyed had been offered, sold or given an illegal drug in the 12 months preceding the survey.[40]

Participant at the skill training workshop of "Bal Mandir". The Kathmandu NGO received funding from UNDCP to open two drop-in centres for street children. Photo: UNDCP.

A third trend discernible around the world is the increasing availability of many kinds of drug to an ever-widening, socio-economic spectrum of consumers. For example, the recent growing importance of African ports and airports as transit routes and the involvement of African nationals as couriers are thought to be contributing factors in the expansion of nearly all forms of drug abuse. Drugs – in particular heroin – are becoming a serious problem in Egypt, where around 6% of a broad sample of secondary school students admitted to having experimented. Cannabis accounted for 85% of use, opium for 10%.[41] Although injecting drug use is rare in Africa, it is thought the association of intoxication with alcohol and drugs with uninhibited sexual behaviour could be a contributing factor to the rapid spread of sexually transmitted diseases. These aspects are studied in detail in 3.4. A study of secondary school students in northern Nigeria and their current use of psychoactive substances (including tobacco and alcohol) ranged between 1.1% and 3.5% with a male to female ratio of 3:1. Although the rates are low in relation to industrialized countries they cause concern for several reasons: more than 25% of students said it was "very easy" to obtain a wide variety of illegal drugs; crack cocaine has appeared in Lagos and, on the basis of reports from schools in four regions, LSD has also entered the market.[42] In South Africa prevalence rates were of a similar magnitude, but included the smoking of a mixture of cannabis and methaqualone.[43] Cannabis is already a popular drug among secondary school students in Lagos; heroin is now cheaply available and consumption patterns have shifted from use by an affluent minority to marginalized young unemployed males. In an unwelcome sense, therefore, psychoactive drug use has 'democratized'.

Injecting is considered the most dangerous way of taking illicit drugs.

3.4. THE HEALTH RISKS OF INJECTING DRUG USE*

HIV/AIDS

While illicit drug use in any form can be associated with harmful consequences, drug injection is commonly regarded as the most dangerous method of administration. One of the principal reasons for this is the association between unsafe injecting practices and the possibility of contracting HIV/AIDS. Psychoactive drug use is sometimes hailed as the 'late twentieth century malaise' even though it originates in ancient, socially accepted traditions going back thousands of years. In fact the epithet is more appropriate to HIV or to AIDS – a rapidly-developing, new communicable disease which was unheard of until the first cases appeared in the USA in 1981.

AIDS is an acronym for **acquired immunodeficiency syndrome**, so-called to reflect the *acquired* impairment to the immune system as distinct from *inherited* immunodeficiencies, and called a *syndrome* because it can lead to a whole set of different symptoms or associated diseases. An AIDS diagnosis is based upon a definition of the disease in terms of a list of specific AIDS-defining conditions, drawn up by the Center for Disease Control and Prevention (CDC) in Atlanta, USA, and revised

* This section was written by Katalin Veress, MD, MSc.

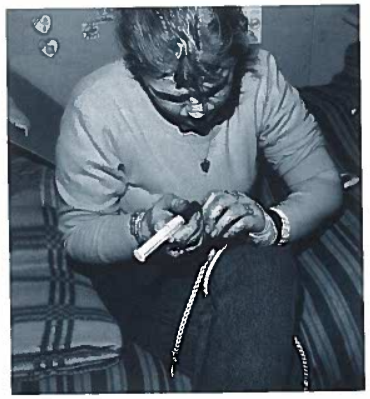
from time to time as knowledge of the natural history of the disease grows. Revisions made in 1987 and 1993 incorporated into the definition those conditions which are particularly frequent HIV-related clinical manifestations among injecting drug users.[44, 45] In its fifteen-year history the virus has infected an estimated 24 million adults worldwide, a total which could grow to 40 million by the year 2000.[46]

The disease was first recognized when the CDC began to receive reports of unusual infections, particularly amongst homosexual men. These so-called *opportunistic infections* were similar to those suffered by individuals with severely damaged immune systems. Although presenting clinically diverse conditions such as *pneumocystis carinii* pneumonia, Kaposi's sarcoma, wasting disease or others, it has been possible to isolate a common virus from almost all of these patients. A *retrovirus* called human immunodeficiency virus (HIV), acknowledged as causative in the impairment of the immune system, was identified in 1983. Two different strains of the virus were isolated, the first strain (HIV-1) in a French laboratory, the second one, (HIV-2), from a population in Dakar, Senegal in 1985.[47] The epidemic is primarily caused by HIV-1. Different geographic regions have different HIV-1 variants and because of their wide diversity, these were classified into distinct genetic subtypes (designated with letters from A to O). The last one, O, currently causes a diagnostical problem because it is not consistently detected by the diagnostic kits commercially available in Europe and the USA.[48] Differences in the basic genetic structure of these subtypes make it possible to 'map out' the dissemination of HIV-1 variants and to follow the route of infection into different geographical regions. HIV-2 used to be predominant in certain West African countries, and even when diagnosed elsewhere those infected were usually from Africa. The pattern has changed recently such that, for example, the proportion of HIV-2 isolates among reported HIV-positive tests in Portugal has now reached 10%.[49]

Having HIV (antibody) positivity, an HIV-related illness or simply the HIV disease means that one has been exposed to HIV, that one has been infected and that one has a long period (up to 10 years, occasionally even longer) of asymptomatic, chronic infection which will gradually destroy the immune system to the point at which an AIDS-defining condition is reached. Once an intravenous drug user has been diagnosed with AIDS he or she usually dies within one or two years.[50]

For a long time AIDS was mistakenly interpreted as the 'gay disease' as until 1987, the AIDS incidence (the number of newly emerging cases in a defined population during a given period) among men reporting sexual contact with other men increased rapidly in the USA and in Western Europe. From 1984 to 1986 the annual increase in AIDS incidence in New York City, San Francisco and Los Angeles among this group of men ranged from 43 to 113%.[51] Less attention was paid to blood transfusion patients and to intravenous drug users (IVDUs) who represented a relatively insignificant share of cases at that time.

By the end of the 1980s the world had learned that the disease also spreads by heterosexual contact, namely unprotected (without condom) sexual intercourse with an HIV-positive partner of the other gender, and that, for countries in sub-Saharan Africa, in the Caribbean area and for some in Latin America, the heterosexual mode of transmission was dominant. A constantly increasing



HIV/AIDS has added a new dimension to the risks of drug taking. Photo: World Health Organization.

percentage of newly-recognized AIDS cases has also been associated with heterosexual transmission in the industrialized world. This automatically introduces the possibility of mother-to-child (*vertical* or *perinatal*) transmission, a *consecutive* mode of infection which has increased in prevalence and significance. The AIDS incidence related to heterosexual contact has risen to the point where an estimated 75% of all HIV infections are now transmitted through heterosexual intercourse,[52] making HIV/AIDS into a primarily sexually transmitted disease in global terms. Although in the USA the biggest share of transmission still belongs to men who have sex with men, in Europe the dominant mode of transmission since 1989 has been injecting drug use. Patterns in Asia are changing rapidly, with an increasing share attributable to IDU.[53]

As time passes it becomes increasingly clear that heterosexual transmission overlaps with other transmission categories, very often sex with an injecting drug user (IDU). This introduces the category of subjects with *sexually transmitted diseases* (STDs), through whom acquisition and transmission of HIV is greatly facilitated[54] (see below). For women in the developed world, the 'sex with an IDU' category has recently become of great importance: research in New York City has shown that over 80% of the cases of heterosexual spread involve a drug injector somewhere along the chain of transmission.[55, 56]

Although not insignificant for the younger age groups of women in developed countries, the facilitating role of STDs is overwhelming in the developing world, where heterosexual spread is dominant, where the burden of STDs lies,[57] and where more than 80% of HIV carriers resided in 1990. By 2000, this proportion is predicted to reach 95%.[58]

As research progressed, the single common denominator between the different transmission routes proved to be the blood chain. The virus passes from the body of an infected person into the bloodstream of another through bodily excreta – semen or vaginal secretions – or from contact with blood – through micro-injuries or lesions, or directly injected into the veins. Once absorbed into the recipient's bloodstream the virus finds its target cells for replication and invades the second organism. Thus

75% of HIV infections worldwide are transmitted through heterosexual intercourse. In Europe most cases are caused by IDU.

injecting drug use, implicitly connected with blood-contaminated equipment, is of primary importance among potential transmission routes. Blood for transfusion and blood products were made essentially safe after 1985 by screening donors.[59] In August 1995 the US Food and Drug Administration recommended that all blood and plasma donations be screened for an additional antigen* in order to shorten the infectious 'window period' – that is, a time span of around 25 days when recently infected donors are infectious but have not yet developed detectable levels of HIV antibody.[60]

The use of blood-contaminated injecting equipment by which the virus is injected directly into the blood or body tissues may carry a higher risk than unprotected sexual intercourse, where, for example, admission of the virus into the bloodstream may or may not result from the contact of infected semen with abrasions of the cervix (which are not uncommon). Nowadays, having unprotected heterosexual intercourse with an HIV-infected injecting drug user (IDU) is the most likely way in which a careless, non-injecting, otherwise 'average person' might contract HIV. IDUs and those with sexually transmitted diseases (STDs) other than HIV/AIDS are the groups which, being more susceptible to HIV themselves, have higher rates of HIV-positivity than the general population and so provide hidden support for the pre-eminence of heterosexual HIV transmission.

Sharing injecting equipment which may be contaminated with HIV carries a very high risk, whether the injection method be intravenous, intramuscular or beneath the skin ('skin-popping'). For this reason the acronym IVDU (intravenous drug user) has been altered to IDU, to include any form

* A substance which stimulates the production of an antibody, a defensive substance produced in response to the action of anything foreign to the body.

of injection. The micro-transfusions that occur when two or more people use the same needles and/or syringes are a particularly efficient vehicle for the transmission of HIV as well as other blood-borne infectious diseases (see below).

Who are the IDUs?

A profile of the 'typical' IDU emerged from WHO's Multi-City Study (supported by UNDCP), the largest international comparative study on injecting drug use and HIV infection, undertaken between October 1989 and March 1992. The comparison was based on the recruitment of 6390 drug injectors mainly outside drug treatment settings.[61] The results for 12 cities (Athens, Bangkok, Berlin, Glasgow, London, Madrid, New York, Rome, Rio de Janeiro, Santos, Sydney and Toronto) indicated that IDUs were: mainly males 55% (Berlin), 95% (Bangkok); predominantly 20 – 34 years of age (80 – 90% for almost all of the cities) ; single, never married, widowed, separated, divorced – 88 – 90% or more; childless – 30% (New York), 80% (Rome) or, at most 15 – 40% with one child. Over 50% had less than ten years of full-time education and the majority were unemployed; in the cities of Bangkok, Berlin, Madrid, New York and Santos, 30% – 50% had no source of legal income. Between 20 – 40% were living with a current sexual partner, while 4 – 35% were homeless. In each centre more than 50% of IDUs had been in prison or jail overnight at least once, and in New York, Toronto, Athens and Glasgow, over 30% had been incarcerated more than five times.

How many IDUs are there in the total population?

An estimate can be made on the basis of the 100+ countries in the world which reported injecting drug use in 1994 (See Fig. 1). More than 60 countries also reported HIV infection among IDUs.[62,63] This number has since risen to 80.[64] A survey published in 1992[65] representing 61% of the world's population gave between 3.1 – 3.6 million IDUs in absolute numbers. The number of IDUs per 100,000 population ranged from less than one (Indonesia, the Philippines) to 5948 (Bermuda), with an average of a few hundred per 100,000 in most countries.

It is difficult to give a rationale for the spread of injecting drug use independent of continent, culture, religion, social class, urban or rural circumstances.[66] Yet injecting drug use has become a worldwide phenomenon: as Asia entered the HIV/AIDS epidemic in the course of the 1980s, IDUs became a frequent source of infection, and injecting drug use is now the second most frequent type of exposure to the human immunodeficiency virus. To date, 80% of the HIV infections in Malaysia[67] and China[68] seem to be related to injecting drug use.

The use of plants containing psychoactive substances has long been a part of Asian culture and some countries of the 'Golden Crescent' (the area of South-West and southern Asia, including districts of Pakistan, Afghanistan and Iran) and the 'Golden Triangle' (part of the territory of Myanmar, Thailand and the Lao People's Democratic Republic in South-East Asia) were opium producers in the nineteenth century.[69] As a consequence, the 'rural drug abuse pattern' with traditional consumption and with older abusers still continues.[70] Although drug injecting has at times reached epidemic levels, as with morphine injection outbreaks in Thailand (1908), in Singapore during the 1950s, and amphetamine abuse in Japan after the Second World War, traditional opium-consuming patterns were smoking and eating.

Several factors appear to facilitate the emergence of injection as a pattern of drug abuse:

(a) When other forms of drug use are commonplace;
(b) When indigenous drug users migrate;[71]
(c) Where injection of drugs for self-medication is common practice;[72]
(d) When local populations are involved in the cultivation or manufacture of drugs or live along a drug trans-shipment route;
(e) Where the form of the drug changes to make it more easily injectable, such as opium being processed into heroin before trans-shipment;
(f) When there is geographical proximity to a country or region where injecting is commonplace.

The simultaneous convergence of all these elements helps to explain why, in the countries of the 'Golden Crescent' and around the 'Golden Triangle', where increased opium production during the 1980s led to a sharp rise in illicit narcotics consumption globally,[73] injection drug use has risen sharply.

Injecting tends to be the predominant route of administration of heroin unless inexpensive, 'pure', high-quality heroin is available in ample quantities.[74] This has not been the case in recent years, even in the source countries. The reduced volume of the injectable form facilitates illicit distribution, while compared to inhaling or smoking, injected heroin provides an equivalent 'high' with only one third of the quantity. Injecting not only maximizes the amount of drug that actually enters the brain, but the dose of drug is fully utilized.[75]

Once injecting drug use becomes 'fashionable' the first HIV-infected IDUs start to appear, and the infection spreads with astonishing speed. In macro-cities like New York, Rio de Janeiro and Bangkok, HIV has been introduced into the local population of injecting drug users through 'bridge groups' of men-who-have-sex-with-men and who also inject drugs.[76] Another element which encourages spread is 'drug tourism', whereby drug users travel across borders in order to purchase drugs more easily or cheaper. This is how the so-called 'frontier abuse pattern' emerges. These are the occasions when carrying injection equipment is inconvenient and would serve as a proof of drug-related illegal activity for the police, so the user finds it more convenient to share a needle with another user, to go to a 'shooting gallery', to be injected at 'dealers' works' or to go to a professional injector who may use the same needles and syringes on several dozen clients. Whatever form the sharing takes, it effectively multiplies the risk of becoming infected and of transmitting the virus. Other high risk practices include 'flushing out', 'frontloading' and 'booting' – whereby the solution for injection is prepared in a used syringe (with residual blood in it) for two or more persons, and shared afterwards by being sucked or pumped into other syringes. The risk of sharing unsterile 'cookers' may be reduced by immersion in bleach.

Injecting guarantees that more of the drug reaches the brain.

Do all IDUs share?

WHO's Multi-City study reports that in each of the cities there was a core of drug users (14% in total) who were sharing needles and syringes on a daily or weekly basis. The highest proportions of daily or weekly sharing were found in Santos, Berlin and Madrid. In each centre, however, at least 45% of the IDUs said that they had not injected with a used needle and syringe in the previous six months, and at least 68% did not share more often than on a monthly basis.[77]

What proportion of IDUs are HIV infected?

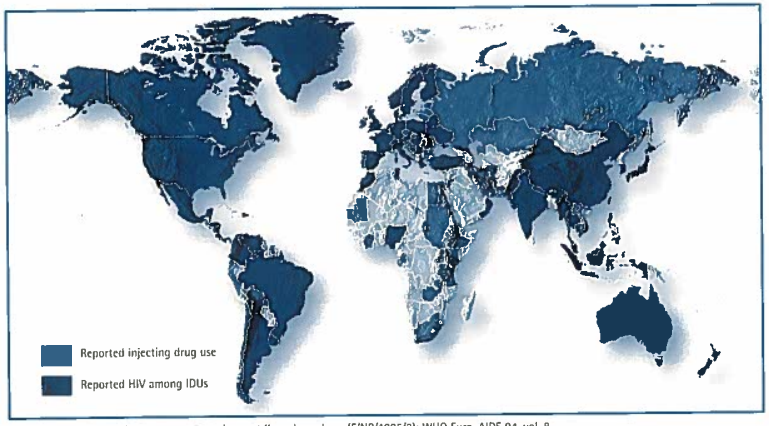
WHO's Multi-City study identified the proportion of tested IDUs having blood (or saliva) tests, showing laboratory signs of HIV infection at a certain point in time (seroprevalence) in each of the sample cities in terms of 'low' – under 5%; 'medium' – 5 – 20% and 'high' – over 20%. Epidemics among IDUs were characterized as of low seroprevalence in Glasgow, Toronto and Sydney; medium in London and of high seroprevalence in New York and Bangkok. In New York HIV seroprevalence increased from under 10% in 1978 to approximately 50% by 1983. Fig. 2 [Multi-City; p. 11] demonstrates the rapidity of spread of the HIV virus among IDUs in 13 locations. Concerns about HIV and AIDS has generally prompted a behavioural change among IDUs[78] towards safer injecting but much less towards safer sex. Large-scale behavioural change and risk reduction have been followed by the stabilization of HIV seroprevalence in almost all of the 13 cities in the study.[79]

What proportion of the HIV/AIDS infected population are IDUs?

At the global level, some 22% of the world's HIV/AIDS population inject drugs,[80] a significantly higher proportion than that of the drug-injecting population in the total population (see paragraph entitled 'How many IDU's are there in the total population?'). Individual countries report quite different shares from 6% (UK) to 80% (Thailand) (Fig. 3).

These data are a crucial guide both for the formulation of preventive policy and in anticipating future health costs: the higher the proportion of IDUs among the HIV/AIDS population, the higher will be the incidence (within a 5 – 10 year period)

Fig. 3.1: Distribution of countries reporting injecting drug use and HIV infection among IDUs.



Sources: UNDCP, Annual reports questionnaire, part II on drug abuse (E/NR/1995/2); WHO Euro, AIDS 94, vol. 8.
Note: The boundaries shown on this map do not imply official endorsement or acceptance by the UN.

Africa

Chad
Côte d'Ivoire
Egypt
Ethiopia
Gabon
Kenya
Mauritius
Morocco
Nigeria
Senegal
South Africa
Sudan
United Rep. of Tanzania
Tunisia
Uganda
Zambia

Americas

Argentina
Bahamas
Bermuda
Bolivia
Brazil
Canada
Chile
Colombia
Costa Rica
Dominican Rep.
Ecuador
El Salvador
Guatemala
Haiti
Honduras
Jamaica
Mexico

Americas (continued)

Nicaragua
Panama
Puerto Rico
Suriname
Uruguay
United States of America
Venezuela

Asia

Azerbaijan
Bahrain
Bangladesh
China
Hong Kong
India
Indonesia
Iran
Iraq
Israel
Japan
Jordan
Kazakhstan
Kuwait
Kyrgyzstan
Lao People's Dem. Rep.
Macao
Malaysia
Myanmar
Nepal
Oman
Pakistan
Philippines
Qatar
Republic of Korea
Saudi Arabia

Asia (continued)

Singapore
Sri Lanka
Syrian Arab Republic
Taiwan
Thailand
Turkmenistan
Viet Nam
United Arab Emirates
Uzbekistan

Europe

Albania
Austria
Belarus
Belgium
Bulgaria
Croatia
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Italy
Latvia
Liechtenstein
Lithuania
Luxembourg
Malta
Moldova, Rep.

Europe (continued)

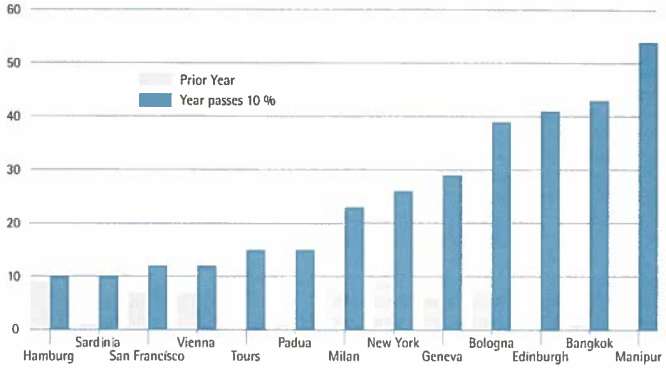
Monaco
Netherlands
Norway
Poland
Portugal
Romania
Russian Federation
San Marino
Slovak Republic
Slovenia
Spain
Sweden
Switzerland
Turkey
Ukraine
United Kingdom
Yugoslavia

Oceania

Australia
Fiji
Guam
Micronesia, Fed. States
New Caledonia
New Zealand

Italics indicate countries reporting HIV among IDUs.

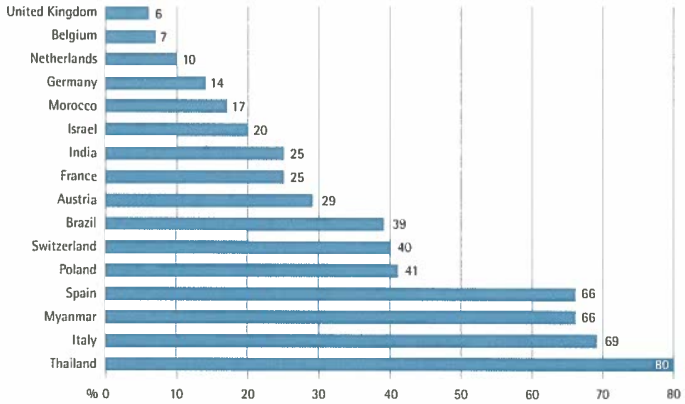
Fig. 3.2: Seroprevalence among drug injectors in the year before and the year in which it reached 10 %.



Data for Edinburgh compare first half-year of 1983; for Bangkok, the second half-years of 1987 and 1988; and for Manipur, January through September 1989 and October 1989 through June 1990. Source: Friedman S. R. & Des Jarlais D. C. (1991) HIV Drug Injectors: The Epidemic and the Response, AIDS Care, 3 (3) 239 – 250.

Source: World Health Organization, 'Multi-City Study on Drug Injecting and Risk of HIV Infection,' 1994.

Fig. 3.3: Proportion of injecting drug abusers in HIV/AIDS population, selected countries.



Source: UNDCP, Commission on Narcotic Drugs, General Debate, 'Economic and Social Consequences of Drug Abuse and Illicit Trafficking: An Interim Report' (E/CN. 7/1995/3).

of IDU-related or IDU-associated HIV/AIDS, which includes AIDS in IDUs, sex partners of IDUs, and children born to mothers who were IDUs or sex partners of IDUs.[81] For many countries this will constitute a considerable burden on the health and welfare system. Even were a cure to be found, such as the new three component (AZT+3CT+proteaz-inhibitor) 'AIDS control', it will be expensive and difficult to administer. Given the estimated costs of around $15,000 a year per patient, access to the treatment will be limited, especially in developing countries where the overwhelming majority of the world's AIDS cases have so far been recorded. Prevention of IDU-related HIV/AIDS rather than treating it, should be the primary objective.

IDUs and gender

According to the Multi-City Study, women form a higher proportion of 'new injectors' (persons injecting drugs for six years or less). Between 25% (New York) and 69% (Glasgow) of injecting women belonged to this category; among injecting men, between 12% (New York) and 51% (Glasgow).

Hepatitis, TB and STDs could have an even greater impact on society than HIV.

There was almost no difference in the frequency of sharing of injecting equipment when comparing male and female IDUs. In Brazil the male/female ratio of AIDS cases declined from 44.5:1 in 1980 - 84 to 3.2:1 in 1995 - 9, probably because heterosexually acquired AIDS cases and IDU transmission are heavily weighted towards women.[82] In an HIV epidemic in Belgrade in 1987/88, a greater share of women (who represented a quarter of the whole sample) started using heroin or other opiates earlier, and showed some tendency to become infected with HIV earlier than males.[83] In most European countries injecting drug use has played a major role in the vertical (from mother to child) and in the adult epidemic; it was the mode of transmission for the largest proportion (32%) of the mothers of children infected this way with AIDS.[84] Prevalence of HIV infection among female commercial sex workers, especially in street workers in the developed world, is strongly associated with injecting drug use. According to a study in Denmark, seroprevalence was found in 31.8% and 1.5% in IDU and non-IDU female sex workers respectively.[85] Often IDUs themselves, they have much more risky sexual behaviour, with more partners, more STDs, and put themselves at increased risk of HIV when they neglect condom use with non-paying casual partners.

The association between drug injection and HIV transmission has rightly become a major concern in many parts of the world. However, WHO has warned of the existence of other drug-abuse related conditions with the potential for an even greater impact on society in statistical and medical terms, such as hepatitis, tuberculosis and sexually transmitted diseases.[86]

Hepatitis

Hepatitis B and C (formerly *non-A, non-B*), were recognized as potential risks by injecting drug users even before the era of HIV. Both diseases chiefly affect the liver and are spread by blood-borne and sexual transmission in the same way as HIV. The hepatitis-B virus is around 10 times more infectious than HIV and can be transmitted through blood, blood products, and sexually by semen and vaginal fluids. While sexual spread accounts for most cases of adult transmission, anyone who injects fairly regularly and accepts residues of dissolved drug from syringes used by others runs a significant risk of infection. The incidence of acute cases of hepatitis B has long been considered a indirect indicator of the incidence of injecting drug use.[87] More recently, data suggest that injecting drug use is more consequently linked to hepatitis C than to hepatitis B.[88] This brings little comfort because although hepatitis B may be fatal in adults, recovery and lifelong immunity can occur even without specific treatment. A third possibility is the development of a *chronic carrier state* with lifelong persistent infection. Not only does this damage the liver irreversibly, it signifies that the infected individual is a constant potential source of infection for others. Although in some parts of the world more people are at risk from hepatitis B than from HIV, hepatitis B is preventable, since a safe and highly effective vaccine has been developed against it.

The situation as regards hepatitis C is worse. This disease is recognized worldwide as a major cause of

Hepatitis C: Preventive message.
Photo courtesy Lifeline Manchester.

chronic hepatitis, cirrhosis (a degenerative disease of the liver, interfering with its function and with the circulation of blood and bile) and liver cancer. Up to 100 million people are chronically infected with it.[89] The hepatitis C virus (HCV) has a lot in common with HIV. A person infected with HCV becomes a carrier, and therefore is infectious for others, yet at least nine months must lapse between the date of infection and a positive laboratory confirmation. This so-called 'window' period is as dangerous for HCV as it is for HIV. Although costly screening tests are in use, they are practically unavailable in the most affected developing countries, as is the prohibitively expensive interferon – the only known cure, but one not without side-effects or frequent relapses. There is no vaccine or any other kind of prevention apart from universal precautions such as cleaning, disinfection and sterilization of instruments, avoidance of sharing paraphernalia and rigidly observed rules of personal hygiene – a series of almost impossibly high standards for the majority of illicit drug users.

Tuberculosis

If HIV/AIDS has been labelled an 'emerging' disease, then tuberculosis (TB), a serious public health problem in the first half of this century, should be called a 're-emerging' one. TB was brought under control, if not eradicated, in Europe and elsewhere in the developed world thanks to the vaccine BCG; one of the aims of WHO's Expanded Programme on Immunization was likewise to free developing countries from this burden. The characteristic feature of the disease is that after a primary contact of the human organism with the bacterium, Koch's *tubercle bacillus*, the infection lies dormant in the body, waiting for the moment when the immune system is weakened for some reason – by poor physical condition, by another disease, the aging process or a fresh TB infection – whereupon the latent infection is reactivated. While the form of disease affecting the lungs is the most common, the infection can occur in other sites in the body (lymph glands, bones, genito-urinary tract) or can erupt in several sites at once. The key factor – and the connection between TB and HIV – is the frailty of the immune system. Immunodeficiency caused by an HIV co-infection is nowadays the greatest risk factor for the reactivation of latent TB,90, converting it into a life-threatening condition. In turn, a TB reactivation can speed up the progression of an HIV infection. As a result, those who are HIV positive are also more susceptible to primary TB infection, especially since highly lethal, multidrug-resistant strains of the bacteria have developed – this means they are not curable by the known, traditionally efficient antibacterial therapy. Nowadays, tuberculosis is the opportunistic infection which most frequently kills HIV-positive individuals.[91] In 1993, after of the discovery of the HIV – TB interaction, the original CDC definition of AIDS was modified and a new AIDS surveillance case definition was applied.[92] TB cases associated with HIV infection are expected to multiply nearly seven-fold in ten years, according to the World Health Organization (see Table 2).

Sexually Transmitted Diseases (STDs)

Injecting drug users are characterized in most studies as sexually active.[93] The disinhibitory effect that drug and alcohol use has on decision-making about safer sex and overall sexual safety,[94] the association of drug use with commercial sex, the increasing use of crack cocaine, sex with multiple

Table 2. HIV and TB in Asia: Estimates from 1990 through 1995 and the year 2000.

	1990	1995	2000
Illness (annually)			
TB cases	4,945,000	5,544,000	6,207,000
TB cases among HIV positive people	85,000	282,000	639,000
TB cases attributable to HIV (%)	1.7	5.1	10.3
Deaths (annually)			
TB deaths	1,731,000	1,940,000	2,172,000
TB deaths among HIV positive people	30,000	99,000	224,000
TB deaths attributable to HIV (%)	1.7	5.1	10.3

(Numbers on Asia include South-East Asia and western Pacific)
Source: WHO press release WHO/63, August 1994

partners and bartering sex for drugs all make the IDU population prone to a higher occurrence of sexually transmitted diseases (STDs), not only to HIV/AIDS. Globally, the 'first-generation' STDs – syphilis, gonorrhea and chancroid – are re-emerging, while a second generation such as chlamydia, genital herpes and others of virological origin, including hepatitis B, C, and HIV are emerging and expanding fast.[95] Chlamydial infection, gonorrhea, syphilis and trichomonas infection most frequently facilitate transmission of the virus during unprotected intercourse from the genital areas into the bloodstream through genital ulcers. The risk of HIV infection is about four times greater in the presence of these ulcerative diseases,[96] and conversely, an HIV-infected person has a higher susceptibility to syphilis, herpes or other infections in a more rapidly advancing and severe form.

3.5. ILLICIT DRUG USE AND CRIME

The term 'drug-related crime' is used to cover an extremely broad and complex range of offences. The first and most direct relationship is the category of drug law violations: this includes unauthorized possession and consumption of controlled drugs, illicit cultivation, their production and sale and the laundering of the profits from these activities. Many countries which have laws on conspiracy or criminal association apply increased penalties when the association is formed with the explicit aim of violating drug laws. A second category consists of offences committed as a direct result of the pharmacological effects of drugs. A third group covers *acquisitive* or *predatory* crimes such as theft and property offences committed by consumers in support of their drug habit. The gains from such crimes are not necessarily used only for purchasing drugs but may go to ordinary living costs: a dependent drug user may be unable to find or hold down a job and therefore crime may be the only source of income. A fourth connection between crime and drugs is the range of other criminal activities which may be linked to drug trafficking such as corruption, intimidation, murder, terrorism, and the illegal traffic in arms and explosives. This section concentrates primarily on the link between illicit drug *use* and crime.

Different methods are used to gauge the extent of drug-related costs to society and these are discussed in 3.7. The United Nations regularly conducts and publishes surveys of crime trends, operations of criminal justice systems and crime prevention strategies in Member States. The sharpest increase in recorded crime in both the period 1980 – 1985 and that of 1975 – 1989 was in the category of drug-related crime and robbery. The rate of increase in drug crimes was greater than for all other types of crime except for kidnapping, for which the base figures were low.[97]

Using the word 'costs' in its broadest sense, the worst consequences of most types of crime, including that relating to drugs, fall on the urban poor, especially in the run-down ghettos of the world's

The use of crack cocaine is often associated with violent crime. Photo: UNDCP.

largest cities. These are the areas where actual crime is compounded by fear of crime – of domestic burglary, of being molested and robbed while walking alone or at night, or of being caught up in 'turf battles' between rival gangs; where high-rise apartment blocks are disfigured by vandalism and syringes are discarded in the back yards and parks where children play. These costs are of course the most visible ones – the entire community pays the price for extra policing, higher insurance premiums and for criminal justice in courtrooms and prisons.

There is sometimes confusion in the discussion of crime and drugs about the extent to which illicit drug use 'leads' to crime or vice versa. Both of these, and neither, can be true. Some illicit drug consumers cope with their drug use without ever committing an offence other than a violation of drug laws; some start a criminal career which subsequently includes illicit drug use, others start taking drugs and turn to crime. US and UK research show little support for the theory that young drug users turn to crime solely in order to pay for drugs. Those who commit crimes frequently, and over long periods, are often those who began offending at a young age and later moved to illicit drug use, although drug use often escalates the frequency of the criminal activity. Rather than a direct relationship between crime and drug taking, it seems that minor predatory crime is a predictor of serious predatory crime, and that circumstances surrounding delinquent or criminal activity are contiguous with those that surround illicit drug use to the extent that the lines of causality are blurred.[98] In other words illicit drug use is just one element of a delinquent lifestyle.

Relatively few countries have carried out rigorous research into the drugs-crime link, but where this has been done the following conclusions emerge:[99]

- Involvement in property crime can pre-date illicit drug use, facilitating experimental or casual use and then dependence;
- Dependent drug use can pre-date other forms of crime and precipitate these (although this is less common);
- Once dependence occurs, especially upon heroin, property crime increases and narcotic use is further increased; and,
- Drug treatment programmes reduce the criminality of dependent users while they are in treatment.

The US Drug Use Forecasting System (DUF) carries out random voluntary urine tests, with anonymity guaranteed, on arrested offenders in a series of US cities. The 1989 DUF data showed that approximately 20% of those arrested had tested positive for two or more drugs. Cocaine was the drug most often found in the majority of men and women arrested in 1989 (and had been in 1988). The percentage varied in the different cities from 26% to 74% for men and from 23% to 74% for women. For the female sample, 82% of the positive tests were carried out on women arrested for offences linked to prostitution; for men the offences for which more cocaine-positive tests were recorded were

The causal relationship between illicit drug use and crime defies simple analysis.

larceny and robbery with violence. In more than 50% of cases, the drug use was not linked directly to the crimes for which the subjects had been arrested.[100]

A study of prison inmates in three US States showed that only 26% of illicit drug users cited their drug involvement as a primary motive for their crime; 20% said it had been their sole motive. The researches conclude, " ... for the vast majority of offenders who commit predatory crimes, use of illicit substances appears to be neither a necessary nor a sufficient cause of onset of predatory criminal behaviour. Continued criminality was more

predictive of future drug use than was drug use predictive of criminality".[101]

Cocaine and crack have continued to show up in the DUF survey with particular frequency, with over two thirds of those arrested in Chicago and Philadelphia showing positive for crack in the fourth quarter of 1992. Opiate use was much lower – under 20% in most cities and in many under 10%.[102] This type of survey indicates how many of those arrested use, or have used drugs illicitly, but no clear causal relationship can be inferred; the fact that they were caught may simply mean they were the careless or unsuccessful criminals.

Researchers in Italy have elaborated on a possible 'environmental' link between cocaine use and crime, whereby the relationship is symbiotic or mutually reinforcing, rather than one of cause and effect. This theory postulates that in subcultures frequented by habitual and professional criminals there is a higher proportion of cocaine users than in the rest of the population. The validity of the hypothesis for the city of Milan was tested by a group of researchers working from three different directions: toxicological, criminological and psychiatric.[103] Post-mortem forensic testing for cocaine was carried out on all subjects (1,248) who had died in Milan between 1986 – 89 as a result of suicide, murder or as a result of accidents of any kind. Over the entire 4-year period, the proportion who had died as a result of an accident and was found to be cocaine positive accounted for 1.69% of the total. The proportion was even lower (0.9%) for suicides, and considerably lower than that for morphine-related suicide (3%). A much higher percentage of cocaine positive subjects – 22.94% – were victims of murder. This proportion was consistently high for each of the four years and was increasing rapidly compared to other causes of death. A significant share of all the murders (109) was attributed to some form of retaliation or gang warfare. (See Box 3B for more on the drugs-violence link).

The criminological approach consisted of a study carried out on prison inmates in Milan who admitted to being cocaine (only) users. Of 92 inmates surveyed, 84 (91.3%) could be described as professional criminals. The forensic-psychiatric investigation was based on 1,400 files from the archives of the Department of Criminal Anthropology at Milan University relating to psychiatric interviews of convicted prisoners. Although cocaine use had been reported in only 51 cases, or 3.56% of those analysed, the largest group (37 – 72.54%) consisted of professional criminals, some of them belonging to large criminal organizations; most had been charged with property offences. Among these, cocaine use was described as a recreational activity, often mentioned together with gambling and heavy drinking. In only three of the 51 cocaine-related cases did the effects of the drug have a determining role in the committing of the crime.

From the various threads of their research the authors reached three principal conclusions:

(1) Cocaine use is widespread among professional criminals;
(2) A direct pharmacological correlation between cocaine use and crime – such that the effects of the drug induce the crime – was exceptional, notwithstanding the severe psychopathological effects which acute and chronic cocaine intoxication can bring about; and,
(3) There was a conspicuous absence of any indirect correlation between the recourse to crime and the need to obtain a costly substance. In this sense the cocaine/crime relationship was significantly different from the heroin/crime link. Although cocaine was more costly than heroin in Milan, none of those interviewed or whose records were examined had committed the crime in order to obtain cocaine. Nor did any relationship emerge between the committing of crime and a withdrawal crisis for cocaine, a consequence attributed by the authors to the different type of dependence induced by cocaine and to the different psychological and social backgrounds of those for whom it was the preferred drug.

Estimates of the impact of drug-related crime rely on economic costings based on court and prison records and on interviews with drug users in different settings – in treatment centres, on the street or in prison. Part of the cost to society can be estimated by the numbers of persons who go through the criminal justice system for drug-related crimes. In 1988, for example, the sentencing cost (including custodial sentences) for drug law violations

in England, Wales and Scotland was estimated as UK£56.85 million (US$100 million at 1988 exchange rates).[104]

Some estimates have been produced of the cost of drug-related predatory crime, although these have been carried out in few countries and on a basis which is acknowledged as being approximate. On the basis of all the research done in the USA and the UK, the proportion of illicit drug use which is financed by crime is thought to be between one fifth and one half.[105]

Estimates of the cost of drug-related predatory crime are very approximate.

A study of residential burglaries carried out in four districts in England in 1983[106] showed that between 3% and 20% of those convicted were also listed in the Home Office Addicts Index (see Part 7, UK Country Profile) as notified addicts. Another UK study of the estimated number of drug-related burglaries in England and Wales in 1987 suggested that between 6% and 24% of burglaries involving loss, 6 – 22% of thefts from persons and 0.6 – 8% of shoplifting were committed by dependent heroin users.[107] In 1994 the Institute for the Study of Drug Dependence attempted to quantify the annual cost to society of acquisitive crime committed by dependent heroin users to finance heroin purchases, and the proportion of all acquisitive crime that this represented in England and Wales.[108] The estimate was calculated on the assumption that each dependent heroin user (who typically also uses other drugs) consumes one third of a gram of heroin on 228 days of the year; that there were between two and five times more dependent heroin users than had been notified to the Home Office as being addicted; that the proportion of the cost of heroin financed by acquisitive crime falls within the range of 16% to 48% (calculated from international studies) and that stolen property was sold for only one third of its value. Using the retail prices as collated by UK enforcement authorities, the authors concluded that in the early 1990s dependent heroin users in England and Wales raised between UK£58 million and 864 million per annum (between US$96 million and 1.4 billion) – using the minimum and maximum estimates of numbers of users and of the percentages estimated as derived from acquisitive crime. This amounted to 1 – 20% of the costs of thefts recorded by the police. It should be remembered, however, that the number of crimes recorded always falls well below the figure of actual crimes.

In New South Wales, Australia, a survey was carried out of the self-reported criminal activities of 54 heroin users prior to their arrest. Between them they had committed 5,319 break, enter and steal offences, each involving more than 100 Australian dollars. Fifty-one non-heroin users had committed 507 similar crimes in the same period. Twelve heroin-using convicted shoplifters had between them committed 1034 offences in the six months prior to arrest, while five non-users had committed 209 offences in the same periods.[109]

Most studies of the drugs/crime relationship in the UK show that drug habits are invariably supported by a variety of legal and illegal activities, but that acquisitive crime is not necessarily the primary or an inevitable response.[110] An important percentage (perhaps 30 – 50% of illicit drug use) is supported by activities within the drug distribution network. The type of drug used, the patterns of use and the lifestyle of the user all seem to have some bearing on the type of criminal activity that users engage in.

Researchers studying the illicit heroin market in the prosperous northeastern Italian town of Verona in 1988, reported that in addition to legal employment, heroin users had three principal methods of financing their habit – petty crime, buying and selling heroin and prostitution.[111] The Verona public drug treatment service estimated that 60% of female dependent users used prostitution as a means of supporting use, although other estimates were as high as 80%. The need to supplement a legal income with other forms of financial support had grown in the course of the 1980s. Of the 122 heroin dependent users arrested in Verona in 1987 for the first time 82.8% had been arrested for violation of drug laws and 9.8% for crimes against the person or against property; however, of the 288 dependent users *re-arrested* in that year, the proportions stood at 58.3% and 27.1%, respectively.[112]

Two studies – one carried out in the USA and the other in the UK – examine how crack/cocaine habits are supported financially by drug users (a) in treatment and (b) in a non-treatment or 'street' sample. The two studies are not directly comparable but nonetheless both shed some light on the crack/cocaine-crime relationship in different settings.

A survey of crack/cocaine use and street crime in Miami, Florida,[113] carried out between 1988 and 1990 was based on interviews with 387 adult crack users, of whom 189 were in treatment and 198 were not. Interviewees answered questions concerning drug and crime careers and current crime involvement (the 90 days preceding the survey); their responses were then compared with research carried out in 1977 – 1978 on heroin users. The most significant findings were as follows:

- Over 90% of both the treatment and the non-treatment crack users had committed a crime (other than drug possession/use);
- Almost all the non-treatment crack users were currently involved in street crime, with only 16.4% of men and 21.9% of women – all treatment clients – having committed no crimes other than unlawful possession/use;
- Drug distribution offences were the primary criminal activity for two in three crack users in both samples (compared to one in eight heroin users);
- The level of involvement in drug distribution was extremely high: 114 male crack users in the non-treatment sample reported an average of 6,099 criminal offences each day in the 90 days prior to the survey, of which almost all were individual retail sales. This works out at an average of 67 sales per day per user;
- Males in treatment were ten times less involved in crime than those on the street, for females the ratio was 1:5;
- The majority of non-treatment males and females were involved in petty property crime: 48% of men and 62% of women had committed on average at least one such offence every week for the previous three months;
- Sixty-nine percent of the non-treatment women were trading sex for money or drugs or helping a prostitute partner to do so;
- Of the non-treatment group, 61.9% of the women and 91.2% of men estimated that at least 90% of their drug use was supported by criminal income; and,
- With regard to current criminal activities of the non-treatment sample, drug dealing represented a more regular form of income than it had done for heroin users: drug sales constituted 98% of all current crimes for the male crack users compared to 51% for male heroin users, who had estimated that 34% of criminal activities were attributable to thefts and other property crime. For the crack-using females of the non-treatment sample, drug sales represented 97% of offences compared to 30% for female heroin users, who were more likely to resort to prostitution and procuring offences (41%).

A survey[114] of two sample groups of cocaine users recruited in different locations in England and Wales – of whom 412 were attending a treatment agency and 81 were not – reported on the commonest means used to support the drug habit. The results were as follows:

	Treatment %	Non-treatment %
Gone into debt	62	74
Sold their own possessions	58	52
Sold drugs other than cocaine/crack	51	75
Stolen from people other than family/friends	45	30
Committed cheque card or credit card fraud	31	36
Stolen from family or friends	31	20
Sold cocaine	28	54
Taken extra work	17	34
Embezzled	16	10
Sold crack	10	16
Prostitution	10	18
Other activities	7	12
Traded sex	5	13

These findings suggest that while cocaine use does lead to higher rates of acquisitive crime, consumers also carry out a wide range of non-drug crime and non-criminal activities to support their use; non-treatment cocaine users were less likely to resort to acquisitive crime and more likely to sell drugs than treatment clients.

3.6. DRUGS AND WORK

Considerable concern has arisen in recent years about the potential effects of illicit drug use on behaviour in the workplace and its implications in terms of safety, productivity and costs. Although an individual may never take drugs during working hours, the acute or chronic effects of psychoactive drugs are such that they can impair working efficiency, resulting in absenteeism, accidents or health care costs, all of which have repercussions for employers and colleagues as well as for the consumer.

Quite clearly, any functional impairment caused by drug use will vary according to the drug taken and the nature of the work: repetitive work is less affected than are cognitive functions, but at any level, concentration may be affected and reflexes slower. The consequences for society of drug use by an airline pilot, crane operator, soldier or surgeon are likely to be much more serious than by a gardener or house painter, but even the latter are likely to work below their maximum potential if under the influence of drugs. Stimulants can enhance performance on simple tasks if consumers do not overestimate what they can do, but regular or intensive use is almost certain to lead to reduced performance. And in the office, an employee who comes to work after a drug or alcohol binge with a headache, feeling irritable or depressed is likely to vent some of these feelings on colleagues. Moreover if the habit turns into one of dependence, there may be temptations to steal or embezzle.

The most extensive studies of drug and alcohol use in the workplace have been carried out in the USA, where a positive correlation has emerged with higher job turnover and absenteeism, although other factors, such as educational level and character traits, were thought to play an important role. Overall, drug users reported missing one or more days in the past month because of illness or injury 50% more often than did non-users.[115]

In a study of the relationship of drug use and subsequent job performance with the US Postal Service,[116] pre-employment tests of applicants were correlated with later behaviour on the job at several intervals. Positive pre-employment drug test results were found to be positively correlated with absenteeism and involuntary separation. It was found that differences between those who tested positive and the negatives increased with time.

Another US study examined the relationship between illicit drug use and various measures of workplace performance by comparing records for employees in the Georgia Power Company.[117] Drug users were found to have consumed almost twice the medical benefits as the non-drug-using control group; to have been absent 15 times as often and to have made over twice the number of workers' compensation claims.

However, considerable caution is required in inferring any causal links from these studies. As their authors stress, it could be that drug use causes more absenteeism because of the direct effects of the drugs, but it could also be the case that some individuals possess particular behavioural or character traits which make them both more likely to absent themselves from work and to take drugs.

A study of alcohol and drugs in the workplace in the European Community, involving employers' and workers' organizations and business enterprises, was carried out for the International Labour Office (ILO) in 1993.[118] Although there existed no national workplace policies on drugs or alcohol in the 12 countries studied, the survey highlighted a growing concern over these issues. A total of 237 respondents provided information on the extent and perceived consequences of drug and alcohol use (categorized as alcohol, cannabis, opiates, prescription drugs and stimulants), and relevant policies, affecting nearly one and a half million workers in Europe. More than half the sample reported specific performance impairments and absences from work as a result of drug-related problems. Employees had been dismissed for drug-related reasons in the previous three years by two out of five of the sample. Drugs and alcohol were associated with the same types of problem (and were often used together) but those associated with alcohol occurred more frequently than those with drugs.

After alcohol, perceived as causing the most significant adverse effects, prescription drugs were mentioned by 64% of respondents as being a

problem, cannabis by 54%, opiates by 53% and stimulants by 50%. Although for most categories respondents were unsure about trends, there was least uncertainty over prescription drugs, with 87% of respondents believing there had been an increase in the previous three years.

To assess the scope of drug and alcohol problems in Canada, a survey was conducted of more than 2,000 persons in the province of Alberta, including both the current workforce and those who were seeking work.[119] Less than one in 16 reported illicit drug use in the past 12 months, but amongst current drug users, 18% reported at least two personal problems associated with their drug use.

Unemployment and drug use can forge a particularly vicious circle.

Given that illicit drug use occurs more frequently in young people than in other age groups, it is generally assumed that the 18 – 34 year-old group will have the highest prevalence within the working population. Unfortunately, high and steadily climbing rates of unemployment affect the same age range as those persons most likely to use drugs and have drug problems. High youth unemployment may aggravate the problems of the drug user. According to the ILO, some 30% of the world's labour force are not productively employed. Employment has constantly lagged behind economic growth for both developing and industrialized countries such that substantial increases in capital investment, or productivity, have not always translated into more jobs. The situation of 'jobless growth' causes particular concern since the number of young people is expanding faster than available jobs and the disparity between the size of the labour force and the number of persons employed is expected to worsen over the next few years.[120] The ILO estimates that the overall labour force in Sub-Saharan Africa will increase by 3.3% by the end of the 1990s while employment opportunities will increase there by only 2.4%.[121] The situation is also critical in many South American countries: in 1993, 38%, or about 39 million Brazilians were under- or unemployed, with four million unemployed in the six largest cities.[122] Furthermore, the skills and education levels of those working were low: of a labour force of about 60 million in 1991, 69% of workers had not completed (eighth) grade.[123]

The European Union had an estimated 18½ million unemployed in 1996, of whom half were 'long-term' or unemployed for more than one year, of whom one half again consisted of young people.[124] Italian youth unemployment, the highest in the EU, reached 48.2% in southern regions of the country (see Part 7, Italy Country Profile). Education and training, often mentioned as solutions to unemployment, may be part of the problem rather than the solution, since the existing supply of educated and trained persons frequently exceeds the demand in many countries. Competition for jobs is likely to increase and employers may become even more selective in hiring young people. Some of the unemployed may turn to drugs in frustration or boredom, and thereby risk compounding their marginalized status and jeopardizing their future employability.

In both developed and developing countries there are signs of an association between unemployment and drug abuse, although as always, caution must be used in interpreting such a link. In Bangladesh, the unemployed were the single largest category of dependent drug users coming forward for treatment.[125] Surveys comparing illicit drug use among the employed with the unemployed in the USA, showed that a higher percentage of unemployed – 13.9% – were current drug users, compared to 6.7% of employed adults; of all current illicit drug users aged 18 and over, 74% were employed, compared to 94% of the general population.[126]

Rather than under- or unemployment, in some countries it is the *type* of employment which exposes certain sectors of the working population to drugs, or to a perceived need for them – truck drivers in Iran, Thailand, Myanmar and Pakistan often take amphetamines to keep awake on long journeys; of those attending treatment in the Pakistani city of Rawalpindi, 25% were transport workers or drivers. Physically strenuous occupations such as mining (in Myanmar), and fishing and agriculture (in Thailand) have higher rates of drug use than other sectors of the population. Workers in the tourism industry, especially in otherwise low income countries, are particularly vulnerable: young women working as waitresses, hotel maids, night club hostesses or prostitutes in Jamaica may be introduced to cocaine or crack by clients.[127] In a study carried out in Jamaica, perceived availability of crack cocaine throughout the survey group was 41%; in urban and tourist areas the percentage rose to 69%.[128]

In conclusion, while there is little scientific evidence with which to analyse the impact of illicit drug use on the workplace, studies on alcohol together with the evidence of widespread drug abuse problems around the world, provide ample warning. Health and social problems cannot be separated from the place in which one third of our life is spent. The workplace is both a family and a community, and it reflects the strengths and weaknesses of each.

3.7. TOWARDS A DEFINITION OF 'COSTS'

The concept of cost is a vital yet elusive component of any discussion of the impact of illicit drug use. The economic costs of drug abuse are widely quoted but rarely defined, partly because of the interdisciplinary approach necessary for costs to be assigned and partly because of the lack of empirical data by which to measure them. Economists have bypassed this constraint by using the concept of 'opportunity costs' to measure the value of different activities. This is based upon the assumption that limited resources always have alternative uses. The measure of opportunity cost is the benefit which would be derived from the best alternative use of a particular resource. For example, the opportunity cost of an employee arriving at work in an intoxicated state would be the percentage of average daily production lost as a result of the condition. If the employee's drug use led to inattention and to an accident at work, causing injury to the employee or to others, the cost to the company of health care, of lost working days and perhaps of employing temporary staff during the convalescent period would constitute another cost. Were the company to provide drug abuse treatment for its employees, health insurance deductions could increase for all. In each of these examples the cost of drug abuse extends well beyond the individual, and are not defined by productivity losses alone but fall into the category of observable, involuntary costs imposed upon non consumers.[129] If the costs of drug abuse are limited to the private costs of a single individual, the economic impact on the rest of society is assumed to be negligible. However, when the costs are incurred not only by the consumer but by the community, they become social costs. The key distinction is between the *private* costs the consumer incurs and the *social* costs imposed by the behaviour or expected behaviour of others.

The economic costs of drug abuse are widely quoted but rarely defined: the key distinction is between private costs and social costs.

Policy makers use measurements of drug abuse costs in order to target public spending in key areas. However, measuring the costs of illicit drug use is complicated by the illicitness, and therefore the hidden nature, of the activity. Moreover, while some costs – for example loss of productivity due to impaired performance or loss of employment – are relatively easy to quantify using the concept of best alternative use, most are not. A high proportion of the costs to society occur outside the market economy. For example, it would be extremely difficult to quantify the quality of family life lost due to drug abuse, or the costs this dysfunction may cause in the future.

One of the most important social and economic consequences of drug abuse is crime. Criminality can be termed a market characteristic of drug abuse because it is present in all market transactions and is directly linked both to the illegality of the drugs and to their addictive potential, the same elements which determine illicit profits. Thus, all the component parts of the criminal justice system designed to protect the public by enforcing restrictions on the availability of drugs, fall into the category of social costs of drug abuse. Costs which are less easily quantified include, for example, the replacement cost of stolen property, higher house insurance policies, and the cost of changing mode or route of

Table 3. Economic costs of abuse of illicit drugs.

	US$ million	
	1988	1992
Net production costs	311.7	355.1
Health care	21.7	28.2
Law enforcement	249.9	297.1
Resources used in addictive consumption	126.2	142.7
Total tangible costs	709.5	823.0
Intangible costs	232.3	320.0
Total costs	941.8	1237.4

Note: Lines may not produce the totals due to rounding.
Source: D. Collins - H. Lapsley, 1996.

transport to avoid crime-infested areas. To quantify these as costs of drug abuse they must be (a) directly or indirectly attributable to drug abuse, and (b) capable of measurement. Attribution and causality are problems which confront all cost studies. In the case of criminality, costs are usually attributed to illegal drug use when crimes were committed under the influence of an illicit drug, were committed to finance the use of an illicit drug, or criminal justice and law enforcement resources were used to prevent or prosecute drug-related crimes.

Australia

An attempt to quantify the social costs of drug abuse in Australia was calculated for 1988 and 1992.[130] The authors of the study estimated that overall costs of drug abuse, including alcohol, tobacco and illicit drugs, would have been US$11.6 billion in 1988 and US$13.9 billion in 1992. Tobacco accounted for around two thirds and alcohol for one quarter of the total costs in both years. Illicit drugs represented 8.1% and 8.9% of the total costs respectively and 0.4% of GDP. The cost calculation includes both tangible and intangible costs, as is shown in Table 5.*

The study defines economic costs as " ... the value of the net resources which in a given year are unavailable to the community for consumption or investment purposes as a result of the effects of past and present drug abuse, plus the intangible costs imposed by this abuse".

However, the cost estimate for illicit drugs did not include any numerical value for drug-related crime, such as the cost of property crime in the replacement value of the stolen goods. This estimate can be complemented with a 1992 study by Marks.[131] Nonetheless, discussion of the value of stolen goods is problematic: drug-dependent users and the persons buying stolen goods are members of society, thus by this definition, the value cannot be included as a 'cost'. Marks calls it a 'forced transfer' instead. However, not all the value of stolen property is recovered in the market for stolen goods, and Marks considers the loss of property value as a genuine economic cost (for discussion of forced transfers see Part 4, Box 4B).

In their report, Collins and Lapsley did not regard social security payments as economic costs of drug abuse. They were considered to be 'transfers' in Marks' study. If the definition of economic costs made by Collins and Lapsley were changed to consider resources that are not available to the *rest* of society, welfare costs as well as other transfers could be considered costs to society. Furthermore, Marks calculated defensive costs against theft as being a part of costs (see Table 4).

The total budgetary outlay by federal and state governments for health and law enforcement amounted to about US$440 million in 1992.

* Intangible costs consist of evaluating the loss of life-years during the year in question caused by past and present drug abuse by comparing actual population to a counterfactual population that would exist in case of zero use of drugs.

Table 4. Alternative estimate for drug abuse costs in 1988.

Losses	US$ million
Drug Law Enforcements Costs	223.8
Present Value of Future Production Lost	124.5
Methadone Maintenance Costs	33.6
Value destroyed in Property Crime	121.7
Defensive Costs against Theft	160.8
Total Costs	664.3
Transfers	
Property Crime Losses	325.9
Social Security Payments	132.9
Total Transfers	458.7

Source: Marks, 1992.

Table 5. The social and economic costs of drug abuse in 1988.

	UK£ million	US$ million
Preventive and medical	33.7	60.0
Investigation	150.5	267.9
Legal	12.2	21.7
Sentences	56.9	101.3
Drug-related crime		
Police		
Legal	3.3	5.9
Sentences	90.0	160.2
Value of stolen goods	1475.0	2625.5
Public sector total	346.6	617.0
Private sector	1475.0	2625.5
Total	1821.6	3242.5

Source: Fazey, C.S.J. - Stevenson, R.C., 1990.

The United Kingdom

A broad-based estimate for the social and economic costs of drug abuse in the UK[132] amounts to US$3.2 billion, or 0.4% of GDP in 1988, and includes the items shown in Table 5.

The costs are dominated by the value imputed to goods stolen by drug users. This estimate, although considered conservative by the authors, is near the upper-end estimate made by ISDD[133] in the early 1990s. Alternatively, only the loss of value due to acquisitive crime could be included as a cost to society. The income flowing to the criminals would be then called a 'forced transfer'. This approach would probably reduce the cost of acquisitive crime by three quarters.

Another possibility for cost savings was identified by Fazey and Stevenson in the change of treating cannabis offenders. This recommendation has been partly applied by increasing the number of cannabis cases dealt out of court (see UK Country Profile), and it was increasingly applied even during the elaboration of the study, as the authors admit.

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The social and health impact of drug consumption among youth: The Peruvian case

BOX 3A

Dr. Roberto Lerner

THE GLOBAL PSYCHOACTIVE SYSTEM AND PERU'S PLACE WITHIN IT

No-one today can doubt the existence of a worldwide global psychoactive system that includes production, trafficking, commercialization at different levels, money laundering and drug use.[1] Although the role of countries within this circuit is differentiated (some have more weight in one or more aspects), all participate in it to a degree. It is a very dynamic system and although its components can change places or lose importance – due to economic or political events or to planned interventions – the overall picture has not changed significantly.[2]

For many years Peru's role within the global psychoactive system was as a source country for the raw material – coca leaf and coca paste – for processing coca base and cocaine hydrochloride. The last stages of the process, namely the export of the final product and the control of distribution channels in industrial countries, were primarily identified with drug trafficking cartels in Colombia. However, some important changes have taken place during the last decade as a result of repression in Colombia, the internal war in Peru and its resolution, economic reform and the opening up of the economy. Peru has now become a country in which increasing amounts of cocaine hydrochloride are processed and exported, poppy is cultivated – the only successful case of crop substitution to date – where money is laundered, and where illegal substances are used and abused. Some of these changes have had a significant impact on the younger members of the population.

THE PERUVIAN SITUATION

Peru has undergone important changes in recent decades. Society has moved from being mainly rural to predominantly urban, with almost 30% of the population living in Lima, the capital city. Internal migration has changed cultural and social parameters, creating a divorce between formal society and a burgeoning informal one.[3] Ten years of internal war,[4] hyper-inflation and economic stagnation were followed by political upheaval and economic modernization; an acute sense of uncertainty made way for a relative slump in expectations which cannot be translated in terms of employment or material improvement. The behavioural technologies of war have survived, and are now applied – by the generation which was socialized by them – to everyday situations at school, home and on the street. At the same time there is a desperate search for all the immediate gratifications that until recently were out of reach. The striving for swift economic success and for intense, pleasure-seeking activities is a constant characteristic of all segments of the population, but is strongest among the young of all socio-economic levels.

DRUGS IN PERU: AN OVERVIEW OF THEIR IMPACT

Peru is the source country for 60% of the worldwide production of coca leaf. The plant has been cultivated for centuries in the context of Andean culture and has occupied a significant role within it until the present day. However, since the mid-1970s cultivation has been extended to vast regions around the upper Huallaga valley near the jungle, an area now considered to be outside state control. Perhaps some 180,000 hectares – the exact figures are difficult to determine – are illicitly cultivated with coca leaf.[5]

The main consequences[6] are (a) ecological damage: depredation of the Amazon forest; water pollution due to the pouring into the rivers of chemicals used for coca paste processing; (b) economic distortions: at national level, an artificially high currency value which discourages exports, and at local level, enclave economies in the coca-producing regions; (c) demographic alterations: chaotic migratory flows to drug-producing regions, creating overpopulation and disrupting existing social structures; (d) political difficulties: the social situation of the coca growers is very unstable, and leads to alliances being formed with subversive movements – there is corruption of army and police, infiltration of civil institutions; (e) international tensions: Peru's geopolitical stance has become'cocainized' and all other aspects are subordinated to the drug issue,[7] e.g., the certification process to which the country is subjected by US Congress; and (f) public health effects: although the level of illegal drug use was once relatively low, it has increased in Lima, and probably in the drug-producing regions.

YOUTH AND DRUGS: THE SOCIAL AND CULTURAL CONTEXT IN PERU

Adolescence is a period of definitions and transitions: a sense of personal identity has to be attained through a process that mixes tradition and change.[8] More and more western or 'westernized' societies have wide-band socialization, i.e., there is no consensus about when in the life cycle certain things should occur (sexual initiation, marriage, vocational decisions, the end of education, etc.). The absence of ideological paradigms, the loosening of social rituals, the lack of support systems, family disintegration and anonymity in the big cities, make the adolescent passage more complex and potentially hazardous. In a society like Peru, which has gone through traumatic change and is trying to catch up with lost time, but where certain negative conditions such as drug production or political subversion are present, and where the possibility of attaining the benefits of modernity are remote for the vast majority, the above-mentioned factors have a powerful effect upon young people. Risk-taking behaviour, already more likely among adolescents, is more frequent still, and includes the use and abuse of psychoactive substances.

Most drug use begins during the second decade of life.[9] The most frequently invoked reasons are curiosity, pleasure seeking and personal or family problems. This is also the case in Peru, where in the last ten years drug initiation has taken place earlier for each cohort.[10] Although there is a superficial condemnation of drug use, young people seem to be more and more tolerant of it and to consider it almost inevitable, a factor which, as all experts acknowledge, is even more significant in explaining drug use than availability, which in Peru is very high. It is no longer the privilege of affluent youngsters or of intellectual dissenters, but a sort of social condiment that goes with a very strong drive towards the enjoyment here and now of all pleasures, to the breakdown of rules and conventions, and to oblivion from past frustrations and from the possibility of different, though equally undesirable, future ones. This implies very early and very intense alcohol consumption and, associated with it, illegal substance abuse. There is even a clear tendency, recognized by professionals who work in education and in the mental health services, to single out young people who conform to the rules – academic achievers, for example – and put pressure upon them to transgress.

PUBLIC HEALTH INDICATORS

Peru has a long tradition of epidemiological studies carried out over households or in institutions such as schools. Since the first study in Lima in 1979, research has been conducted by NGOs (mainly CEDRO) and by public agencies (the Ministry of Education) at national level.[11] According to this type of study, drug use in Peru is relatively low compared to other countries. The most recent surveys give the figures shown in Table 1.

Table 1. Lifetime prevalence for different drugs in the total population and according to different socioeconomic characteristics.

	Cannabis	Coca paste	Cocaine	Inhalants
Total	4.0	2.4	1.1	2.2
Gender				
Male	8.0	4.5	2.1	2.6
Female	0.8	0.8	0.4	1.9
Age				
12 – 19	1.7	0.9	0.3	3.0
20 – 29	6.0	3.2	1.8	2.4
30 – 39	5.7	4.3	1.4	1.5
40 – 50	3.0	2.3	1.4	0.5
Education				
None	0.0	0.0	0.0	0.0
Primary	1.5	1.8	0.6	1.7
Secondary	3.2	2.0	0.6	2.0
University	6.8	3.7	2.4	2.8

Source: (CEDRO: Drug Epidemiology in the Peruvian Urban Population, 1995).

Some findings seem to recur throughout the surveys although they are not strictly comparable.[12] Illegal drug consumption is fairly low in the general population; it seems to be a predominantly male phenomenon; it is concentrated in the 20 to 40 age bracket; and is more frequent among people with higher education. The only exception regarding age and gender is inhalants, an important issue, as will be seen later.

Nonetheless, an assessment of the public health effects of youth drug use in Peru cannot rest on this kind of data alone. First, there is a strong likelihood of under-reporting – especially among young people – which was not evaluated in this particular study. Second, household surveys do not take into account marginal populations such as street children or delinquents, or people who live in drug-producing areas. In the absence of reliable drug alert systems at emergency rooms in hospitals or for detainees, and given the lack of serious ethnographic and qualitative studies, we must infer some consequences of drug use from other sources.

In the last five years, the number of therapeutic establishments for people with drug problems has grown at a vertiginous pace. Drug rehabilitation facilities in clinics and hospitals receive more and more patients, a large proportion of whom are young people. Therapeutic communities are tailored for every need, ideology and status. There are around 400 in Lima and their number increases every month. Many residents are under 25 and come from all social groups. It is interesting to note the increasing number of school and university drop-outs who receive attention in these facilities.

Institutions that work with street children have also multiplied. Poverty and marginalization take a heavy toll on youngsters who are obliged to work or live on the street. There is evidence to show that a large proportion of them abuse drugs, especially inhalants,[13] which could be the third most used drug after alcohol and tobacco. The results of this pattern, which exists in other countries as well, are disastrous, because of the toxicity of the substances, their availability and the difficulty of restricting availability.

Although there is no systematic data collection, information from police stations, schools and health professionals clearly indicates that more and more adolescents are becoming intoxicated with drugs and that tolerance, as well as peer pressure, contributes to the recruitment of younger and younger people with each generation which, given the velocity of change in Peru, is a span of five years.

Finally, there seems to be a very close relationship between drug production and drug use. This can be seen in cities and areas close to cultivation and processing where, compared to the past, coca leaf cultivation has ceased to be a cultural tradition and is now an economic-driven activity. The fact that the processing and export of cocaine have moved to Peru adds incentives to young and frustrated people who migrate to areas with no social support structures or traditions. There, drug use seems to be increasing as well.

SOCIAL EFFECTS

The social impact of drug use goes well beyond its public health dimensions. There is no way of knowing which social woes can be attributed to drug consumption, but certainly it is an ever-recurring element of social disruption, to which it contributes and by which it is nourished. In relatively stable and homogenous societies drug abuse is mainly a public health problem, but not in unstable and heterogeneous ones. And certainly not in a country that has gone through collective traumas and is itself a source of drug production. The fact that hope has returned, and perhaps precisely for that reason, given the paucity of concrete gratifications, certain social effects of drug use upon young people have been magnified.

In Peru there is no surplus of positive role models. Young people identify themselves with a number of heroes from the past. But when one asks them who they revere, a very common answer is no-one.[14] Perhaps out of necessity, the media has focused attention upon subversive leaders or drug traffickers and thus has multiplied the presence of negative role models with which a whole generation has been socialized. In a period of economic stability and of relative social tranquillity, people tend to trivialize or glamourize certain traumatic aspects of their collective experience. Thus, many heroes of recent, highly popular TV series and soap operas are in fact young adult figures that include, in their on-screen lifestyles, the use and commercialization of drugs. One of them, whose character was taken from a true story, mesmerized and influenced myriads of adolescents for an entire year. He was mentioned by a not inconsiderable number of 13-year-olds as the person whom they admired the most.[15]

Pacification in Peru is a fact. No one knows for sure if it is definitive, but it has brought relief to millions of Peruvians. Unfortunately, though, Peru has inherited a culture of war that lives on within the minds of its people. Whether in affluent schools or in marginalized shanty towns, behaviour patterns and linguistic expressions provide a constant reminder of war and its ways. A logic of victimization has become entrenched at all social levels and immediate gratification is sought independently from the means to obtain it. The need to celebrate has become pervasive – during the last five years, every opportunity, religious or profane, has been intensely and avidly enjoyed without the ritual, informal and formal controls that once regulated collective and individual pleasure. Traditional support systems have been crippled; the extended family is beginning to recede and the absence of paternal figures is common. According to a recent evaluation[16] around 30% of households are managed by a woman. School is losing ground. Education, the highest valued possession in Peruvian society until recently, is questioned by young people who see no immediate advantage in it. Of around seven and a half million students in primary and secondary education, 9% of youngsters quit and 12% fail at the first level. The figures are 9% and 7% respectively at the second level.[17] The urge to live the present, and the loosening of traditional support systems, along with the ready availability of illegal drugs and their production and trafficking in certain regions, are becoming part of a culture that affects younger Peruvians in particular. Using and then trading illicitly in psychoactive substances is one of the common paths of socialization. This in turn aggravates the situation.

The number of young children and adolescents that have the streets as their main socialization area has grown, particularly in Lima. Their numbers are a best guess given that there are conceptual problems in the definition. If we refer to children and adolescents who actually live in the street, they are

probably not legion. But they do exist – they go by the popular and expressive term 'Piranhas' – and their lives are associated with drug use and dealing. If we refer to children who work in the streets and live most of their lives there, even if they have families, the phenomenon is very important. Recent studies estimate that for street children and young people who socialize mainly on the streets, the probability of becoming involved in the drug culture is high, a factor which serves to increase their marginalization.

Finally, one other aspect should be taken into account when thinking about the social implications of drug use among young people – juvenile violence. The combination of a drug culture and a war culture, together with other socio-economic changes, has paved the way for expressions of violence between young people. There has been a steady proliferation of gangs – some of which are formed entirely by girls – fighting over territory or in the name of loyalty to a soccer team; carrying out acts of vandalism in all neighbourhoods and victimizing the weak in schools and streets. To reduce this phenomenon the highly controversial initiative was taken to apply a night curfew to people under 16. Drug use is an important ingredient in the violent ways of the young.

CONCLUSIONS

Peru is a very dynamic, heterogeneous and complex society. It has undergone accelerated changes and traumatic collective experiences where drugs – their production, trafficking and abuse – have played a very important role. Recent developments such as economic stabilization and expansion and the defeat of subversive movements have opened new horizons, inspired new hopes and have produced some very positive results. Nevertheless, social scars remain and a culture of immediate gratification at all levels has become implanted, while the fruits of modernization are unevenly distributed. For those in a position to profit from them and for those that are not, the need to enjoy and to get a quick fix is equally strong. This is even more acute among the young who acquired their social habits within a global framework that embraced drugs.

It would be naive and untrue to claim that drug use is the cause of all the phenomena that have been mentioned above. An important task for the future might be to assess its real impact with more sophisticated and possibly cheaper methods than traditional epidemiology; and to evaluate the prevention programmes that, for geopolitical rather than for local reasons, have been implemented over the last decade. But drugs are part of the whole process and are a potent combustible within it. It is the particular combination of circumstances – in a country which produces drugs, where psychoactive substances are cheaply and easily available, which has experienced a vicious war, which is recuperating but is not yet cured – that makes drug use part, result and cause of the socialization process. Those that are young now will soon take hold of the reins of the country.

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The relationship between drugs and violence in the United States of America

BOX 3B

Dr. Paul J. Goldstein

There are no standardized empirical indicators, nor is there even a consensus, on definitions of drug-related violence. There are no national data bases in the United States of America, in the criminal justice or the health care systems, that routinely specify the relationship between drugs and violence. Certainly there are no data that allow for comparative analyses of drug-related violence, or comparative assessments of trends over time, between nations or other localities.

A decade ago the author formulated a tripartite conceptual framework of the relationships between drugs and violence.[1] The intent was to provide a 'definition' of drugs/violence relationships that could advance both research and practice. Drugs and violence, it was argued, could be related in three different ways – psycho-pharmacologically, economic-compulsively, or systemically.

The psycho-pharmacological model suggests that some persons, as a result of ingesting specific substances, may become excitable and/or irrational, and may act in a violent fashion. Psycho-pharmacological violence may also result from the irritability associated with withdrawal syndromes or 'crashes' from particular substances; and may involve substance use by either victims or perpetrators of violent events. In other words, substance use may contribute to a person behaving violently, or it may alter a person's behaviour in such a manner as to bring about that person's violent victimization. Finally, some persons may ingest substances purposively in order to reduce nervousness or to boost courage and thereby facilitate the commission of previously intended violent crimes.

The economic compulsive model suggests that some persons feel compelled to engage in economic crimes in order to finance costly drug use. Sometimes these economic crimes are inherently violent, as in the case of robbery, and sometimes the violence results from an unintended or extraneous factor in the social context in which the economic crime is perpetrated. Such factors include the perpetrator's nervousness, the victim's reaction, the presence or absence of weapons carried by either victim or perpetrator, the intercession of bystanders, and so on.

The systemic model refers to the normally aggressive patterns of interaction within systems of drug distribution. Most systemic violence arises from the conditions of doing business in a black market. Examples of systemic violence include territorial disputes between rival dealers, assaults and homicides committed within particular drug dealing operations in order to enforce normative codes, robberies of drug dealers, elimination of informers, punishment for selling adulterated or bogus drugs, assaults to collect drug-related debts.

A series of research studies were undertaken to validate and elaborate on the tripartite conceptual framework. These projects included ethnographic studies of male and female drug users and distributors in New York City; retrospective analyses of police records on homicides throughout New York State; prospective analyses of police data on homicides during active case investigations in New York City.[2] Key findings are described below.

Economic compulsive violence was rare in all studies. Substance users generally supported their drug use through non-violent economic crime, e.g., prostitution, petty theft such as shoplifting, con-games, or through working in the illicit drug business. These illicit 'career options', combined with typically short-term and/or part-time employment, reduced the likelihood that substance users would engage in violent predatory theft.

Psycho-pharmacological and systemic violence were the most common forms of drug-related violence. Psycho-pharmacological violence was most frequently (75% – 95% of the time in all studies) associated with alcohol use, but tended not to have fatal outcomes. Recurring contexts for psycho-pharmacological violence included spousal altercations, fights in bars or in parks between young males, confrontations between prostitutes and inebriated customers.

Systemic violence tended to be associated with whatever particular drug was dominating illicit street markets at the time that data were being collected. Through the roughly fifteen years that the author has been engaged in drugs/violence research, the primary drug related to systemic violence has changed from heroin to powder cocaine to crack cocaine. Had the research been undertaken in the USA in the 1930s, the primary illicit drug associated with systemic violence would, undoubtedly, have been alcohol.

A certain cyclical pattern appears to occur with regard to systemic violence. When a new drug first begins to 'take off' in popularity, and the number of new users is growing exponentially, there seems to be little violence. This is because there is more demand than supply, dealers are primarily focused on obtaining sufficient product to meet demand, and there is little reason to invade another dealer's 'turf' when one cannot even meet demand in one's own territory. Increases in one's pool of customers are achieved naturally because of increasing numbers of customers in a specific territory. This phase of an emerging drug market tends to be relatively brief in specific locations. It lasts for about six months.

Violence tends to begin to rise when the growth rate in the number of new users begins to level out. Dealers are now obtaining increased supply, demand is levelling off and, in order to increase market share, it becomes necessary to invade rival territories. Dealers also become more conscious of their need to limit costs in their enterprise, such as subordinates who are stealing drugs or money from them. Such persons are likely to be physically beaten or killed. Finally, users who have become used to the new drug begin to perpetrate con-games, such as selling bogus drugs, in order to support their continued use. Such con-games may result in violent altercations. Violence may occur between fraudulent sellers and duped purchasers, or as a response against sellers of bogus drugs by dealers who wish to prevent their 'turf' from getting a bad reputation among potential purchasers.

When drug-related homicides occur, the vast majority is systemic in nature. In part this is because drug traffickers usually carry firearms, and spontaneous altercations are most likely to end in death if one or more of the parties involved is armed. In part this is because the violence may have been initiated in an instrumental fashion specifically designed to kill an intended victim, e.g., to eliminate a rival dealer, to 'make an example' of a subordinate who had violated norms in a drug-dealing operation.

Much systemic violence, while occurring in a drug context, is also 'face-saving' violence. Persons who are cheated on a drug transaction, or low-level drug dealers whose territory is infringed upon, may retaliate in order to save face. These persons might be equally likely to retaliate violently if they were cheated in a card game, or if their spouse or lover was cheating on them. It is possible to speculate that individuals with low self-esteem, and few accomplishments to feel proud about, would feel the most ego-threat from loss of face in a particular situation and be the most likely to respond violently. If illicit drug markets were to go away tomorrow, much of the systemic violence that currently occurs within a drug context and is related to saving face might still occur, just in a different, non-drug-related context.

These findings provide evidence that certain common assumptions about drug-related violence are incorrect or exaggerated, or are the result of misinterpretation of data.[3] A critical research question, which has important policy implications,

is whether risks for drug-related violence exist primarily in the effects of the drugs (i.e., psycho-pharmacological), or in certain socio-economic or legal contexts (i.e., systemic or economic compulsive) in which drug users and traffickers operate.

Participants in current drug policy debates, e.g., legalization vs prohibition vs harm reduction, frequently take sides on this research question on the basis of ideology rather than information. A comparison of two of the previously cited studies illuminates some of the issues involved.

A 1986 retrospective analysis of police records on all homicides that occurred in 1984 in New York State (N=1768) was performed.[4] It was found that police did not record useful information pertinent to drug relatedness. New York City, which accounted for 83% of the state's homicides that year, would not let the research team examine their case files individually and were eliminated from the analysis. Thus, data on these 1984 homicides were collected from small cities, towns and rural areas in New York State, and were extracted from police case files not maintained for the purpose of documenting the drug relatedness of homicide.

A 1988 study addressed the inadequacies inherent in using existing police records to attempt to document drug relatedness of violence. In this study,[5] a data collection instrument was included in detectives' case files in a sample of precincts in New York City. The data collection form was designed to gather a wide range of information about the drug relatedness of homicide that is not typically gathered by police. Formerly, when such information was known to the police, it was seldom recorded in a systematic fashion. Collection of data was supplemented by follow-up interviews with investigating detectives.

Data from the 1984 study indicated that most drug-related homicides were psycho-pharmacological. Data from the 1988 study indicated that a majority of the drug-related homicides were systemic. It is difficult to account fully for the variation in findings between these two studies. The 1984 analysis is based on jurisdictions outside New York City, while the 1988 sample is entirely from New York City. The 1984 data were collected retrospectively from existing police records that were not designed to document drug-relatedness, whereas 1988 data were collected specifically for the study purposes during ongoing police investigations. The 1984 homicides were committed before the widespread marketing and availability of crack, whereas the 1988 homicides occurred during a peak year of crack use and distribution. However, while the proportion of drug-related homicides that were classified as psycho-pharmacological varied greatly, from 59% in the 1984 study to 14% in the 1988 study, one important factor remained constant – alcohol was consistently the primary drug involved in the overwhelming majority (about 95%) of psycho-pharmacological cases in both studies. It is difficult to find in these data support for a blanket condemnation of all drugs as containing a potential for producing violent behaviour in users.

The drugs/violence nexus has traditionally existed within the criminal justice arena. However, in recent years the public health and medical communities have 'discovered' violence and have made a substantial commitment to address all aspects of the violence problem.[6] The most important new perspective that the field of public health brings to the issue of violence is a focus, from the very outset, on the outcome of reducing mortality and morbidity due to violence – rather than on any particular method, discipline, or ideology for achieving that outcome. A focus on mortality and morbidity is, of necessity, a focus on people who have suffered injuries.

The public health approach does not differentiate between victims of violence and perpetrators of violence. This is a quasi-legal distinction that has little meaning for public health practitioners. In fact, the distinction between perpetrators and victims has little empirical reality either. Whilst carrying out ethnographic studies of drugs/violence relationships in New York City, the author tried to classify participants in violent events as perpetrators or victims. This turned out to be extremely difficult. Most violent events involved altercations between persons in which both parties bore responsibility for the violence that ultimately took place. Frequently both parties received injuries. Sometimes the person who initiated the violence

was the only one injured, or the most seriously injured. The modal role of actors in these violent events was 'co-disputant', because it was so often impossible for observers to classify persons as victims or perpetrators.

There are local data that clearly link substance use with injury, especially injury resulting from violence. Urban trauma injury patients frequently use drugs and/or alcohol prior to their injury.[7] The connection between prior alcohol or drug use and firearm-related injury is especially strong, usually occurring in a majority of victims.[8] Marzuk et al.,[9] studied all deaths (n=14,843) among New York City residents from 1990 – 1992 that the medical examiner certified as being due to intentional or unintentional injury. Cocaine metabolites were found in 27% of these fatal injuries; free cocaine was detected in 18%. About two-thirds of all deaths following cocaine use involved trauma injury. The authors note that if fatal injury after cocaine use was considered as a separate cause of death, it would rank among the five leading causes of death among those 15 to 44 years of age in New York City. In a study done in the Cook County (Chicago) Hospital Trauma Unit[10] 86% of trauma injury patients manifesting alterations in mental status (n=623) tested positively for substance use, either through urine toxicology or serum analysis. The most common substances found were alcohol, cannabinoids, and cocaine. Patients below the age of 40, and Afro-American patients, were the most likely to test positively.

In the summer of 1993, a study was made of patients admitted to the six Level I (the most serious) trauma centres in Chicago.[11] The sample included all injury victims seen in each hospital during a one-month period. Findings included the following: 40% of cases resulted from intentional injury, i.e., violence; 29% resulted from motor vehicle crashes; 18% resulted from other unintentional injury, e.g., falls. Of the assault cases, 45% involved firearms, 25% involved cutting or piercing instruments. Victims of intentional injury were significantly younger than victims of unintentional injury.

Significant relationships were found between drug use in the past year and trauma injury recidivism: 54% of past-year cocaine users, as compared to 31% of non-users, reported prior hospital admission for trauma injury. Fifty-six percent of past-year cannabis users, as compared to only 28% of non-users, were trauma recidivists; and 67% of past-year heroin users, as compared to 35% of non-users, were trauma recidivists.

Alcohol consumption at the time of injury was strongly related to intentional injury. Forty-seven percent of violence victims reported drinking at the time of their injury, compared to only 27% of victims of unintentional injury. But alcohol was the only substance in which consumption at the time of the injury was related to violent injury.

While cocaine, heroin, and cannabis consumption in the past year were significantly related to violent injury, no statistically significant relationship was found between consumption of these substances at the time of injury and violent injury. These findings suggest that illicit drug use may be less likely to be psycho-pharmacologically related to violent injury, but may indicate involvement in a lifestyle which places the user at risk for violent injury. Such lifestyle issues could include gang involvement (which did emerge as a salient dimension in these data), drug distribution involvement (which did not), as well as psychological dimensions such as risk-taking.

DISCUSSION

The relationships between drugs and violence are varied and complex. This paper has not touched upon broader socio-political dimensions, such as narco-terrorism and drugs-for-guns transactions, that have emerged in diverse locations from Central and South America to Asia, but rather has focused on drugs/violence issues in the USA. The concepts and data presented here have primarily described the process and sequels of drugs/violence relationships as they affect America's urban poor.

It was suggested that cyclical trends in violence were associated with specific phases of drug markets. Recent dramatic decreases in homicide rates in the USA, especially in major urban areas such as New York City, are consistent with this cyclical analysis. The establishment of new illicit drug market relationships and territories tends to

be a violent process. However, at some point equilibrium and accommodation begin to be reached between suppliers, dealers and consumers. In addition, socio-cultural norms, especially in communities suffering the most from high rates of drug use and which are centres for street level distribution, begin increasingly to reject behavioural excesses associated with local drug use and trafficking. At this time, rates of violence begin to decline.

Unfortunately, they are likely to increase again when the next new drug craze commences and new drug markets need to be forged. This certainly describes the American experience with cocaine. Homicide rates peaked from 1979 – 1981, when new markets for powder cocaine were being established and Cuban and Colombian syndicates warred for control of middle level distribution. In the mid-1980s, when these hostilities abated, even though there was plenty of cocaine being distributed and used, there were dramatic decreases in the homicide rate. In fact, the mid-1980s witnessed the lowest homicide rates in a 20-year period.

Then, in the late 1980s, the crack wars commenced and homicide rates soared. Jamaican and Dominican groups were heavily involved in distribution. High rates of drug-related violence and homicide were evident through the early 1990s. Then, in the mid-1990s the homicide rate again decreased dramatically. While there are various theories for the recent reductions in violence in the USA, and many politicians willing to accept full credit, it appears that crack markets may have simply followed a pattern similar to powder cocaine markets a decade earlier. Unfortunately, the American criminal justice and health care systems are still not collecting the sort of data needed for a more definitive elaboration of this issue.

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Part 4:

The illicit drug industry: production, trafficking and distribution

INTRODUCTION

As Part 2 showed, there are many explanations for why people *consume* drugs, but a single word embodies the reason for which they are *sold*: profits. Strangely, despite this pre-eminence, economic analysis has only recently been rigorously applied to the study of illicit drugs. The delay is primarily due to the difficulty of gauging an 'underground' economy. How can one obtain reliable information on transactions which are invariably conducted in secrecy?

Part 4 examines illicit drug production and trafficking from an economic perspective, and in doing so, introduces the concept of an illicit drug industry. In economic terms, an industry is defined by a set of suppliers who cater to a given market, and by the technological and strategic structure which makes their decisions interdependent. The justification for calling illicit drugs an industry is firstly; that there is a great demand for the product in question, therefore a market for illicit drugs exists, and secondly; meeting this demand involves an extensive and complex process of production, manufacture, distribution and investment. If broken down and analyzed in economic terms, the illicit drugs industry yields interesting points of comparison with the structures and operation of legitimate business practice.

This chapter aims to describe the main industrial sectors associated with the illicit drugs market, the interaction between the various stages and activities that comprise the industry and how these relate to the final market product. The later sections of the chapter describe some of the macro-economic impacts of the drug industry on the legitimate economy.

4.1. THE ORGANIZATIONAL STRUCTURE AND SIZE OF THE ILLICIT DRUG INDUSTRY

In some respects, the illicit drug industry resembles that of other agricultural products. Crops are cultivated on large and small land holdings. The harvested product is sold wholesale in a market place or bought directly from the farmer. The product moves through the various stages of processing and manufacturing, either of which may take place on, or near the site of primary cultivation. The product value increases at each phase of supply/production. The production, manufacture and trade of psychoactive drugs also depends on a variety of other goods – equipment and precursor chemicals – which may be provided by those who are either marginally or unknowingly involved in the industry.

The most prominent trafficking organizations appear to be characterized by highly centralized management control at the upper echelons, with compartmentalization of functions and task specialization at the lower levels. A seemingly endless stream of willing recruits for the most menial tasks provides the industry with a key input for its near constant growth – inexpensive labour. In addition, the industry requires a wide range of specialized personnel including chemists, chemical engineers, pilots, communication specialists, money launderers, accountants, lawyers, security guards and 'hit men'.

Another common feature – especially of the cocaine industry – is vertical integration, that is, some, or all of the stages along which the drug passes from source to consumer are controlled by the same network. Most small and medium-sized suppliers prefer to work through established marketing networks rather than experiment with unknown entities.

The profits to be made in the illicit drugs industry are such that they are barely dented by large scale seizures of the product on its way to market. In the course of the 1990s, it is thought that about one third of all the cocaine trafficked has been intercepted,[1] yet the industry has continued to expand. Traffickers have ample incentive to bear the risks and costs of interception, since profits on a mere fraction of the drugs successfully trafficked can cover the costs of the lost cargo. A UNDCP report conservatively estimates that at least 75 percent of international drug shipments would need to be intercepted in order to substantially reduce the profitability of drug trafficking.[2]

Many estimates have been made of the total revenue accruing to the illicit drug industry – most

range from US$300bn[a] to US$500bn. However a growing body of evidence suggests that the true figure lies somewhere around the US$400bn level.[3] As demonstrated in Fig. 4.1, a US$400bn turnover would be equivalent to approximately eight percent of total international trade. In 1994 this figure would have been larger than the international trade in iron and steel, and motor vehicles, and about the same size as the total international trade in textiles (7.5 percent of total international trade).[4] As opposed to estimates of turnover, estimates of profitability would require a more detailed understanding of demand and supply variables such as the size of the consumer market, the costs of production, volume, and wholesale and retail prices. Few of these variables are known at present. Nevertheless, in recent years, a number of studies have come up with relatively useful estimates. One of these, based on average wholesale and retail prices, estimates gross profit margins at retail level of methamphetamine, crack cocaine and heroin at 240%, 300% and 100% of wholesale prices, respectively.[5]

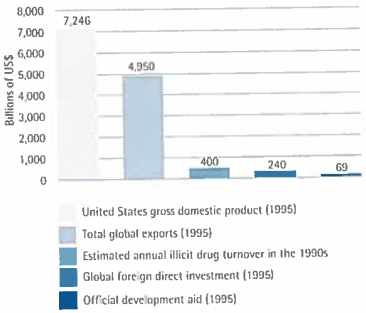
Economic analysis of an underground economy is necessarily problematic.

Knowing the extent of consumption is fundamental to any accurate assessment not only of profitability, but of industry volume. Yet the extent of illicit drug consumption is the least known element of an industry that resists efforts to understand it. Even the most reliable tool of policy makers, the survey, has fundamental weaknesses and is so costly to conduct that very few countries can afford to do so at national level. For this reason estimates of industry size are necessarily accompanied by large margins of error, and are strongly influenced by supply-side rather than demand-side indicators.

Determinants of the illicit drug industry: preferences, technology, factor endowments, and institutions

One of the primary benefits of studying illicit drugs from an industry perspective is the existence of an analytical framework that defines an industry in terms of supply and demand. The components of the analytical framework can be explained in terms of *preferences, technology, factor endowments* and *institutions*. *Preferences* is the term used by economists to describe the objectives of consumers. It may be understood as the nature of consumption or demand, taking into account the idiosyncratic aspects of illicit drug use which drive demand, and which broadly determine the prices that individuals are willing to pay for the industry's products. (See section on the elasticity of demand). In the illicit drug industry, *technology* determines where and how the product can be produced; *factor endowments* determine which economic actors will engage in the production/manufacture of the product; and *institutions*, by determining the legal status of drugs, thereby establish the degree of risk which is run by those participating in industry-related activities. In as much as they affect risk and price, these factors are of particular relevance in efforts to understand the economic impact of the illicit drug industry.

Fig. 4.1: World International Drug Trade (Comparative International Aggregates).



Sources: UNDCP, IMF, Organization for Economic Cooperation and Development

a) bn = billion, i.e. 10^9, throughout this report.

Price elasticity of demand for illicit narcotic drugs

Generally speaking, the price elasticity of demand is the percentage by which demand responds to a change in price: i.e. if heroin had a price elasticity of –1, then a 1% increase in price would cause a 1% decrease in demand. If the elasticity were, for example, –0.1, then it would require a 10% increase in price to produce a 1% decrease in demand. Elasticities for different goods and conditions normally range between inelastic (little influence upon demand) to elastic (significant influence of prices upon demand); perfect inelasticity (price has no effect on demand at any level) and perfect elasticity, exist almost only theoretically. The extent to which goods are necessary for a consumer, and the extent to which substitute goods are available, are the primary influences on price elasticity.

Evidence for the price elasticities of cocaine and heroin are mainly theoretical or drawn from studies of other goods. Perfect price inelasticity cannot exist for drugs. Research on commodities with some of the same qualities, such as alcohol and tobacco has yielded a similar conclusion. It was originally thought that due to their addicitive properties, demand was fairly inelastic. Therefore, heroin was thought to have the lowest elasticity and cannabis was thought to have the highest: the addictive nature of the drugs (implying price is a secondary consideration in the decision to purchase) being the main argument in support of relative inelasticity. A second, and weaker argument has been that certain 'types' of people take the drugs regardless.

It is now argued, however, that addiction is not nearly as compelling as often thought. Drug users can, and do stop use – and users have been known to vary consumption according to the money available to them. Furthermore, the addiction-driven-purchase argument would not apply to experimental users who are not yet addicted, leaving out an important percentage of the total consumer market. A number of theoretical studies examining price elasticities for heroin, cocaine and cannabis, took the relative costs of each drug into account. Based on the theoretical considerations set forth in the studies, the price elasticity of cannabis was concluded to be low at current price levels, while that of heroin was considered high.

One reason for these findings may be that the average expenditure on cannabis represents a smaller proportion of disposable income compared to other drugs. Thus, only a massive increase in price would have a significant impact on demand. Cocaine on the other hand, is thought to have a lower, short-term price elasticity, but a moderate long-term elasticity. The explanation offered was the following: for average income-earners, heavy cocaine use requires a larger share of disposable income. In the short-term, current users who are dependent, will only minimally change their consumption patterns, but in the longer term, higher prices may discourage heavy use, or any significant increase in use, as compared to current use.

Other models explore the differences in price elasticity of demand over price ranges and some of these conclude that the elasticity varies over price ranges. Consumption by occasional users may be more price-elastic than that of addicts when prices rise. At high prices, addicts may not be able to fund their use, and may be more likely to resort to treatment programs. This would mean that at higher prices drugs are more price elastic. These theoretical findings have been confirmed by a recent empirical study carried out by the National Bureau of Economic Research. The study found high price elasticities for heroin (the most expensive of the drugs considered), medium elasticities for cocaine and low elasticities for cannabis (the least expensive). The calculated price elasticities for annual prevalence – i.e. change in number of annual abusers as a result of price changes – amounted to –0.90 for heroin, –0.55 for cocaine and –0.06 for cannabis. The calculated price elasticities for monthly prevalence were –0.80 for heroin, –0.36 for cocaine, and –0.04 for cannabis.

Still more research and knowledge into the behaviour of consumers is probably needed. Their price responsiveness is generally recognized to be more complex than previously thought. For example, it is known that when prices fall, initiates may begin drug use which they cannot stop when prices rise. However if prices increase, substitution of one drug for another might increase the price elasticity of demand for a drug, though it may not decrease the overall extent of drug use.

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Risk as a determinant of price

Price theory is made up of two major components, demand and supply. The relationship of price to demand is discussed in Part 5, Drugs and Public Policy, in particular in 'The Regulation-Legalization Debate'; this section looks primarily at the supply side determinants of price in the illicit drug industry.

For conventional agricultural commodities, the availability of factors such as land, labour and capital are important determinants of a given country's pattern of international trade. In contrast, prices and profits in the illicit drug industry do not appear to be proportional to factor costs, but seem instead to be proportionately related to the risks and the degree of concentration at each stage of production and marketing.[6] Thus a price increase in the early stages of the chain (due to crop eradication, for instance) would only marginally increase final retail values as long as perceived risk remained constant, and would not lead to the cumulative price hikes that might be expected if fixed percentage mark-ups were the standard practice. The price of the commodity soars the closer it gets to its final destination, with the majority of the value being added subsequent to export at the wholesale stage (See Table 1); this is in line with the growing risks involved.

Demand is influenced by the addictive properties of the drug industry's products.

Destroying seized cocaine.
Photo: UNDCP

Table 1. Prices from farmgate to retail market.

Heroin

Opium is reduced to an impure morphine base in laboratories near production sites in the Golden Triangle, the Golden Crescent, Colombia and Mexico. It may also be then transferred to more sophisticated laboratories where it is refined to morphine and/or heroin, and sent to markets in the USA and Europe. Prices increase dramatically in the wholesale export and retail stages. The prices quoted below are for opium originating in Pakistan.[7]

Opium (farmgate Pakistan)	$	90/kg**
Heroin (Domestic wholesale)	$	2,870/kg
Wholesale in the U.S.	$	80,000/kg
Street/final retail price US; purity 40%*	$	290,000/kg

Source: UNDCP. "The Illicit Opiate Industry of Pakistan," Draft Study, 1994.
*According to a DEA document, the nationwide average purity for retail level heroin for 1994 was 40%. **UNDCP.

Cocaine

Grown mostly in Peru, Bolivia and Colombia, coca leaves are refined into coca paste at primitive facilities nearby. The paste is flown to secret laboratories where it is processed first into cocaine base, then into cocaine hydrochloride (the pure white powder that is smuggled abroad). Wholesalers dilute it with an inert substance before passing it on to street dealers, who cut it again. Price structures resemble an inverse pyramid, with greatest profits to be made at the wholesale and retail levels. As is the case with heroin, prices increase dramatically in the wholesale export and retail stages. The prices which follow are for cocaine originating in Bolivia.[8]

Coca Leaves	$	610/kg
Cocaine Base	$	860/kg
Cocaine hydrochloride	$	1,500/kg
Wholesale in the U.S. purity 83%	$	25.250/kg
Street/final retail price in the USA		
Crack	$	50,000/kg
Cocaine Powder purity 65%	$	110,000/kg

Source: Antezana, O., "Bolivia's Coca-cocaine Sub-Economy in 1995: A Computer Model", USAID Bolivia, May 1996. "The Supply of Illicit Drugs into the United States", August 1995.

4.2. RAW MATERIALS

Licit cultivation

As reflected in the Box 1A in Part 1, most plant-based drugs have been cultivated for centuries and have been used in different cultures for various religious, recreational and medical purposes, some of which persist today. Strains of cannabis are legitimately cultivated in certain countries for horticultural and industrial purposes. Licit production of opium and coca account for roughly 10% and 1% of illicit production. The analgesic morphine and codeine, a well-known pain killer and cough suppressant, are derived from opium (for which India is now the sole licit exporter).[9] Licit cultivation of poppy to produce poppy straw takes place in Australia, France, Spain and Turkey. While there are several medical uses of opium derivatives, licit coca production is limited to supplying coca leaf for traditional use. Under existing national laws, approximately 12,000 hectares of coca bush are cultivated for licit purposes in Bolivia, and an estimated 17,800 hectares in Peru.[10]

Illicit cultivation

The largest share of drugs consumed illicitly are plant-based products.[11] The main plants cultivated for illicit production are coca bush, opium poppy and cannabis sativa. Coca bush is cultivated almost exclusively in South America. In 1996, more than 90% of worldwide coca bush cultivation took place in three countries – Peru, Bolivia and Colombia – with Peru alone accounting for more than half the world total. In recent years, the cultivation of opium poppy has been dominated by Afghanistan and Myanmar, which together represent roughly three-quarters of global production. Other countries where opium poppy is cultivated for illegal production of heroin are India, Pakistan, China, Lao PDR, Thailand, Colombia, and Mexico.[12] Cannabis sativa grows naturally throughout the world, which makes any calculations concerning illicit cultivation particularly difficult. It is known to be cultivated in many countries and, unlike opium poppy and coca bush, particularly potent strains can be grown indoors. Large-scale illicit cannabis cultivation takes place in the USA, the Republic of South Africa, Morocco, the Central Asian Republics of the Commonwealth of Independent States, Afghanistan, Pakistan, Colombia, Mexico and Jamaica.[13]

The high profit margins of illicit crops enable drug traffickers to offer relatively high farmgate prices for illicitly grown coca leaf and to maintain the price above that of licit crops which would otherwise be grown. This is thought to be one of the main reasons for the lack of economic competitiveness of licit crops at the cultivation stage. In Pakistan, viable alternatives to the opium poppy include onions, mint, cabbage, corn, barley, wheat and lentils. The net farm income from these crops ranges from 75% to 12% for that for poppy, thus forcing the farmer to incur an opportunity cost when he/she plants the licit crop.[14] In this case, the opportunity cost could constitute the hypothetical cost of the loss of the benefit of the best alternative use (growing poppy) of the resource (the farmer).

High profit margins enable traffickers to maintain prices above those of viable licit crops.

In the early 1990s similar economic disincentives were identified in Bolivia. Agriculturally viable crops which are competitive with coca include

Making coca paste.
Photo: UNDCP

macadamia nuts, rubber, pineapple, black pepper, oranges, hearts of palm, coffee, cacao, annatto, bananas and corn. Excluding macadamia nuts and rubber, these crops range from 87% to 7.5% as a percentage of the net farm income from coca.[15] Macadamia nuts and rubber could both yield greater net farm income, however because of the time required before the plant is ready for harvest, they do not provide the farmer with a competitive alternative in the short term. Macadamia plants require up to ten years to become fully productive and rubber plants need a full 15 years. The coca bush, on the other hand, is an extremely hardy plant which can be fully productive after two years of planting.[16]

Other factors may be even more important – coca, for example, can be grown on steeply sloping land even when the soil layer is minimally fertile. It yields up to four crops annually; once planted it requires less maintenance than other crops and it can be picked manually. For farmers in the isolated Andean valleys, coca represents a dependable source of income, partly because trafficking organizations provide the necessary means to bring the leaves to market. Coca leaves have a lower weight per hectare than most crops and can be relatively easily transported, although they should reach the market within three days for optimal returns. The drug trafficking organizations ensure that this is possible by providing growers with the necessary transport and marketing infrastructure. According to one study, "the Chapare (a coca growing area in Bolivia) is full of rotting oranges, lemons and grapefruit. Over-supply, high transport costs, and long distances to markets mean that often it is simply not worth a farmer even picking them up off the ground where they fall. In 1990 a truckload of oranges fetched around US$75 in La Paz, roughly the same as transporting them there."[17]

Coercion of farmers is another important factor.

Coercion of farmers is another important factor. Violence, intimidation and extortion compel farmers to cultivate crops illicitly and to continue their cultivation even after other financially lucrative options become available. In Peru there is evidence that trafficking organizations have formed 'strategic alliances' with guerrilla groups to ensure the supply of coca leaves to Colombian manufacturing sites.[18] These alliances bring benefits to both sides. Trafficking organizations benefit by delegating the protection of their supply at source, while the guerrillas have access to a source of revenue and to potentially new supporters among the farming community.[19] Alliances between drug traffickers and paramilitary organizations are thought to be particularly common in areas of the world where the cultivation and trafficking of illicit, plant-based drugs are intertwined with anti-governmental insurgency movements. The best known examples of such alliances are in Myanmar, Peru and Afghanistan, but there are many more.

4.3. ILLICIT PRODUCTION OF PLANT-BASED DRUGS

In the case of plant-based drugs, the illicit production stage takes place subsequent to the cultivation and harvesting of the crops. Processing a drug involves use of a series of laboratories, each of which focuses on a specific stage or stages of production. The coca leaf, for example, must first be processed into coca paste, then coca base. Only thereafter can the resultant compound be converted into the powdery white substance called cocaine hydrochloride. A further stage produces crack cocaine. The opium poppy must go through six distinct stages of increasing technical complexity before injectable heroin is manufactured. First, morphine must be extracted from the opium poppy, a process in which lime and ammonia are used. The conversion of morphine into heroin begins with the bonding of morphine and acetic acid into an impure form of diacetylmorphine, or heroin. The third step removes impurities from the compound, using water and chloroform. The final and most difficult stage is the conversion of the heroin into powder form. This requires ether, hydrochloric acid, and a high level of technical skill to avoid igniting the volatile ether gas.

A notable trend in heroin production is the shift in production sites, which in the past were located primarily in Europe near the source of chemical precursors; today, much of the production process takes place in the immediate growing area.[20] A similar trend has been noted for cocaine processing; the reason for both developments being that moving the processing stage of drugs closer to source raises the potential value of a given unit of weight trafficked.

4.4. CLANDESTINE MANUFACTURE OF SYNTHETIC DRUGS

In 1991, synthetic drugs were thought to account for less than 5% of the money spent on illicit drugs in the USA. Since then, the share has grown rapidly.[21] Consumption of two synthetic drugs – methamphetamine and methylenedioxymethamphetamine (MDMA, or ecstasy) – has grown particularly rapidly.[22] In countries of the Asia/Pacific region, methamphetamine abuse is more widespread than that of cocaine, and in several countries more prevalent than heroin. Consumption of ecstasy and amphetamine exceeds that of heroin and cocaine in several European countries. (For more details see Part 1, Box 1B)

In certain ways the illicit industry for synthetic drugs behaves much like its plant-based counterpart. It has, for example, the same defining characteristics of illegality and risk, but there is a crucial difference in that geographical determinants are much less important. Unlike drugs with a botanical starting point, synthetic drugs can be manufactured from chemicals which can be found or produced almost anywhere in the world; this means that they do not need to be trafficked over the distances required in the production of plant-based drugs. Not only does this reduce risk, but reduces trafficking and input costs as well, allowing for much larger gross profit margins.[23] One recent study concludes: "...the overall 'value-added' to be reaped in the (consumer) country/region in question is higher than for illicit plant-based drugs where the value-added in consumer countries is *de facto* limited to trafficking activities. Only minor manufacturing processes, such as transformation from cocaine hydrochloride into crack cocaine, take place in the country of final consumption."[24]

In many cases those who reap the benefits do not bear the costs.

Overall, these differences with the plant-based drug manufacturing process allow for greater profit and more robust expansion, and point towards significant changes in consumption patterns over the coming years.

Selected LSD Papers
Photo: UNDCP

4.5. TRAFFICKING AND DISTRIBUTION

Risks and transaction costs

Given the considerable profit margins, it is not surprising that the industry is so large, both in terms of estimated numbers of participants and of turnover. However, entry into the industry is not cost-free, and one of the most important costs is risk. The illicit drugs industry carries a high penalty for inefficient risk management. The risks – to entry, to persons and to product – constitute the costs of doing business in an illicit industry. In economic terms, these risks can be described as 'transaction costs' – quite simply, the costs associated with engagement in an economic transaction. According to the theory of transaction cost, all economic transactions, either exchanges of goods/services or a promise to deliver

goods/services, involve a cost which is equal to that necessary to ensure fulfilment of the contract, or to that of endowing the contract with self-enforcing properties. In the case of illicit drugs, it is assumed that the highest proportion of costs associated with the industry are transaction costs rather than those of 'factor inputs' such as land, labour, or capital.

The illicit drug business is dynamic and responds quickly to change.

In defining the risks inherent in the illicit drugs industry it may be helpful to make a distinction between personal risks and risks to the product. Personal risks, it can be argued, come from the absence of laws to ensure physical and economic protection. In the illicit drugs industry, where an important managerial skill is the threat or use of violence, this risk comes with an extremely high cost. From the business and product aspects, lack of formal legal recourse means that organizations and individuals may use violence as a means of coercion in obtaining market entry and position (see Part 3, Box 3B). Lack of recourse to legal redress, for example, implies higher transaction costs, because new entrants are liable to be coerced by better established, more powerful organizations or individuals. In other words, entry to a market place and to market position have to be fought for in ways that lie outside legitimate business practice. As Table 2 shows, risks to product and to business come mainly from law enforcement.

At the higher organizational levels of the industry, managers are required to manage the sectors of production, distribution and sales within their responsibility, to ensure a steady supply of drugs and aim for a constant expansion of market size for their organizations. Success and failure are determined by the organization's ability to manage the risks inherent in the business at every level of its operation (see Table 3). As Table 1 shows, all the licit sector risks apply to the illicit sector as well, effectively doubling the necessity to manage risk, and, as many analysts argue, increasing the margin for profit.

Table 3. Similarities in business operation.

Similarities in operating characteristics between legitimate business and the illicit drug business:
1) need for strategic planning
2) need to manage a complex set of business activities
3) need to lower factor costs
4) need to manage employees with a variety of interests and skills
5) need to generate and meet demand
6) need to organize intelligence about markets, competitors and risks
7) need to acquire and master technology for the development of new products and methods of distribution
8) need to maximize profit through expanding market share

The organization of illicit drug trafficking

Considerable profits for participants in the illicit drug industry extend throughout the distribution and laundering phases – a fact verified by their readiness to operate in the illicit markets despite its considerable risks. However, countries to which revenues from production and trafficking accrue in large percentages relative to the overall economy, tend to incur many costs as a result of economic gains made by participants in the industry. This is because the illicit drug industry yields a high degree of costly adverse side effects – such as violence and property loss through theft – relative to industries in the licit sector. A considerable share of these costs is borne by those external to the industry.

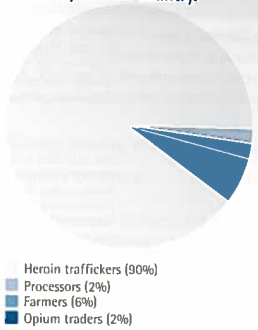
Table 2. Comparisons of licit and illicit sector risks.

Illicit sector risks	Licit sector risks
1) loss of business through effective law enforcement	1) loss of business to competitors
2) arrest/imprisonment/death penalty	2) market contraction/loss of demand
3) confiscation of assets/loss of profit through seizure	3) loss of trained employees to competitors
4) risk of coercion from rival organizations	4) increased fixed costs due to increase in factor costs
5) increased fixed costs due to improved law enforcement	5) change of investment regulations etc ...

Trafficking is the crucial link in the chain between illicit drug production and consumption. The highest percentage of value added (gross profit) is generated at the distribution stage of the illicit drug industry (see Fig. 4.2). According to data for the illicit opiate industry in Pakistan, wholesalers and retailers can receive up to nine-tenths of the retail price of heroin. Once the heroin is exported from Pakistan, however, the value added gets even higher. The value added by trafficking outside Pakistan can easily amount to more than 90% of the retail price in Europe or the USA.[25] (See Fig.4.3) Similar patterns hold true for cocaine. Distribution and trafficking post-export, yield the highest gross profit margins. In Bolivia, one estimate claimed that less than 7% of the total end-value of cocaine was earned by farmers in 1990. This yields not more than 2% of the final street value of farmers' output once fully processed, and leads most analysts to conclude that producer countries cannot be the principal beneficiaries of the raw materials they produce.[26]

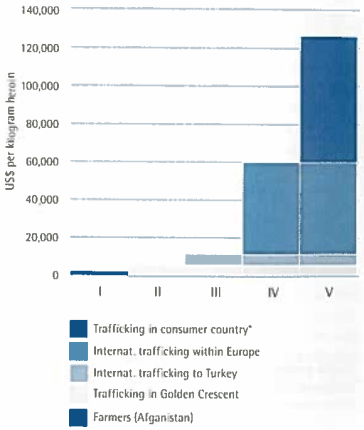
Only a minute portion of the value added of heroin goes to the farmers.
Photo: UNDCP

Fig. 4.2: Distribution of "value added" of heroin in the producer country.



Source: UNDCP.

Fig. 4.3: Generation of "value added" of heroin in distribution network from Golden Crescent towards Western Europe in the 1990's.



* Data do not include trafficking profits made due to dilutions of heroin; actual profits in consumer countries are thus still higher.
Source: UNDCP

Table 4. Major organized crime groups.

	Major Activities	Size	International Connections
Cocaine Cartels	Headquartered mainly in Colombia and Mexico, the cocaine cartels manage the entire cycle of cocaine from production to distribution around the world.	The cartels employ individuals in a rigid pyramid structure, with heads of various families in control of geographic areas gathered together as loose business coalitions. Their objective is to maximize profit.	Cosa Nostra La Cosa Nostra Triads Yakuza
Triads	The activities of the Triads are extremely diversified. They cover drugs, money lending, gambling, racketeering, service sector investment, money laundering and running of clandestine immigration systems.	The Triads employ upwards of 170,000 persons in a fairly traditional pyramid structure headed by a Boss, Underboss, and Recruiting boss. The majority of the organization is made up of 'soldiers.' Known Triads are: 'Sun Yee On' Hong Kong, '14K' Hong Kong, 'Wo Federation' Hong Kong, 'United Bamboo' Taiwan Province of China, 'Four-Seas Band' Taiwan, and 'Great Circle' China.	The Triads are pervasive and are known to be active throughout Asia, Europe and the USA, although their main activities center around Hong Kong, Myanmar, Taiwan Province of China, the Philippines and the USA.
Yakuza	The Yakuza are involved in all types of crime in Japan including racketeering, business fraud, drugs, prostitution and pornography. Within the Asian drugs scene they are very active in trafficking methamphetamine.	There are approximately 60,000 full time Yakuza and 25,000 associates. The organizational structure is extremely complex and involves thousands of small gangs, and many families.	Yakuza are known to have links to organized crime in the USA, Colombia, Germany, China and the CIS.
Cosa Nostra	Perhaps the best known organized crime group, Cosa Nostra has become mainly involved in international drug trafficking, serving as a clearing house for international agreements and drug routes. It also services the financial and laundering needs of many smaller crime groups. Other activities include extortion, loan sharking and skimming public works contracts.	A vertical organization of roughly 5,000 members in regional and provisional commissions.	Based in the Italian island of Sicily, Cosa Nostra has established networks of affiliates in every continent. It has ties with all of the major drug trafficking organizations including the cartels, La Cosa Nostra, and Mafia groups headquartered in the former Soviet Union.
La Cosa Nostra (New York)	La Cosa Nostra is involved in drug trafficking, illegal gambling, arms trafficking, prostitution, extortion, skimming public and private works contracts, usury, business activities, including construction and food retailing, and influencing unions, mainly in the USA.	The organization comprises 3,000 individuals 'soldiers' in 25 families, five of which are based in New York and which hold the greatest prestige and influence.	The primary connections of La Cosa Nostra are the cocaine cartels and the Cosa Nostra, and Mafias headquartered in the former Soviet Union.
Mafia groups' (headquartered in the former Eastern Bloc)	Trafficking in drugs, raw materials, nuclear materials, and weapons. Also involved in money laundering, white slavery, extortion, currency smuggling and counterfeiting.	Three million members in 5,700 gangs of which at least 200 have highly sophisticated structures with dealings in 29 countries.	Groups in the USA, the cocaine cartels and the Costa Nostra.

Source: United Nations Crime and Criminal Justice Division, CRIME, No. 26/27, November 1995, Annex III.

The role of organized crime

Large-scale international movements of cocaine and heroin are almost entirely controlled by transnational organized crime groups, for whom drugs are consequently a primary source of revenue. Thus the illicit drug economy and organized crime are more or less interdependent. The most important role of organized crime in this sector is to provide and invest capital – for example the accumulation of profits from the smuggling of cigarettes and of emeralds enabled the Sicilian Mafia and the Colombian Medellin cartel respectively to make sizeable investments in the drugs trade. Over the last 20 years, drug trafficking organizations have increasingly diversified into other forms of criminal activities in order to protect their primary interest, such as arms trafficking, money laundering and penetration of the legal economic, political, and administrative sectors. A brief review of the major transnational crime organizations is given in Table 4.

Strategic alliances among criminal groups are becoming more common.

Until recently, Colombia accounted for only 10 – 15% of the world's coca leaf production, although some 80% of the refined cocaine sold on the illicit market leaves from Colombia. International trafficking of the drug, from its spectacular rise in popularity in the early and mid-1980s until the present, has been dominated by Colombian trafficking organizations. Up to the early 1990's, the Colombian cocaine business was effectively controlled by two loosely articulated coalitions, or cartels, based in Medellin and Cali, which accounted for 70 – 80% of Colombian cocaine production and export. The Medellin cartel's practice of overt, extremely violent confrontation with state institutions and with those who opposed it, brought about a law enforcement crackdown and, for several years, the predominance of the Cali cartel. But by 1995, with most of the Cali leadership also behind bars and the hold on the market of the two former principal players considerably weakened, costs to entry were lowered. This facilitated the decentralization of the industry, and the entry of new principals - such as the Mexico-based Gulf cartel - and of many other smaller organizations.

The cartels finance the cultivation of coca plants in the Andes by Peruvian, Colombian and Bolivian peasants. Under cartel supervision, peasants process dried leaves into a masticated sticky mass called cocaine base. Pilots fly the cocaine base to clandestine airstrips in Colombia's vast central forests. There, in laboratories – often crude thatched huts – the cocaine base is washed with ether and acetone to become pure cocaine. The cocaine, now a white powder, is packaged and then smuggled to the retail markets. The cartel delivers the product to its wholesale distributors abroad, who in turn sell to a variety of independent local gangs and individual retailers.

Fig. 4.4 reflects the compartmentalized functions within the Cali and Medellin "cartels" as they operated in the mid-1980s. The 'CEO', 'Senior Vice-Presidents' and estimated seven 'heads of divisions' coordinated the smuggling of cocaine to overseas markets. The management structure became increasingly decentralized in the lower levels of the operation and thus increasingly difficult to manage.

Those responsible for distribution in the illicit drug industry respond quickly to changes which may affect any level of operations from production to final retail sale. Managers in the cocaine and heroin industry need to be constantly aware of what is happening in the organization. They must be capable of organizing complex operations involving many operatives at many stages of production, and they must be able to manage all this within the constraints of illegality.

Trends in illicit drug trafficking

The aims of a drug trafficking syndicate are to expand power and influence, develop new capabilities and establish new bases of support. Organizations have learned to maintain influence through diversification, not only into new markets, but more importantly into new and, in many cases, legitimate financial operations.

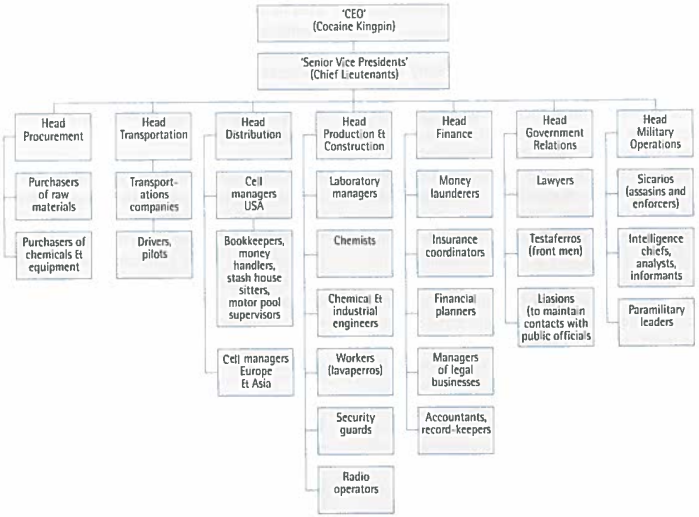
Trafficking syndicates have grown in terms of turnover and employment, all the while becoming more powerful in the licit sectors of the global and

local economies. In the ten-year period between 1982 and 1992, world opium production more than doubled and world output of coca leaves increased more than 300%. Opium cultivation is expanding rapidly in China, Vietnam, Uzbekistan, Tajikistan, Turkmenistan, Colombia and Mexico. Colombia, which still manufactures some 70 – 80% of the world's refined cocaine, is now also among the world's top producers of opium, with an estimated 20,000 hectares under poppy cultivation.

While part of this growth can be explained by a seemingly insatiable demand, industry growth is also due to the development of new and increasingly effective operating procedures on the part of the syndicates. In management terms, most of this success can be attributed to their ability to innovate and maintain operations, despite defections and arrests, while increasing operating efficiency.

The flexibility of the illicit drug industry derives from the capacity of the drug trafficking organizations to constantly improve the technology at their disposal in terms of production and storage methods, smuggling strategies and managerial skills. More and more farmers are using fertilizers

Fig. 4.4: The cocaine trafficking organization as a corporation (in the 1980s).



Source: Lee, Rensselaer, "Colombia's Cocaine Syndicates," in Alfred McCoy and Alan Block (eds.) *War on Drugs: Studies in the Failure of US Narcotics Policy* (Boulder, Co: Westview Press, 1992)

Is the introduction of 'Crack' an example of market diversification?

Crack is the street name for the substance which is produced from the conversion of cocaine hydrochloride to cocaine base. Crack becomes volatile when heated and is usually vaporized in a pipe or smoked with plant material. Inhalation or intravenous use of crack yields a quicker and more intense 'high' than the powder cocaine hydrochloride. A 'high' from the derivative uses less cocaine hydrochloride and therefore is a much cheaper habit. It is also more psychically addictive because of the intensity of its pharmacological effects.

The transformation of cocaine from a US$100/gram luxury for rich young adults in the early 1980s, to the US$15/dose street drug called 'crack' whose use became epidemic in the late 1980s, can be viewed as an example of diversification for market expansion on the part of the cocaine cartels. It is not possible to discern to what extent the cartels' decision to introduce crack was deliberate and planned. However, the timing of the drug's introduction, which coincides with a peaking and subsequent decline in the high levels of demand for cocaine in the early to mid-1980's, would be viewed by most business analysts as a wise decision made with a high degree of market sensitivity. The later 'push' into the US market occurred subsequent to the beginning of the recession in the early 1990s, when cocaine was in the middle of experiencing an estimated 70% decline in use. Use of crack cocaine peaked in 1987, but probably cushioned the fall in the demand for cocaine to the tune of 10 – 30%.

A US News and World Report article confirms the astuteness of the business strategy to introduce crack:

> What turned crack into a craze was mass marketing that would have made McDonald's proud. Crack was not invented; it was created by a sharp crowd of sinister geniuses who took a simple production technique to make a packaged, ready to consume form of the product with a low unit price to entice massive numbers of customers.

Witkin, G. et al, 'The Men Who Created Crack', in *US News and World Report*, August 19, 1991.

and preservatives to increase yield and lengthen the shelf life of their products. Forward integration into the production process is another discernable trend, particularly among coca leaf producers: throughout the Andes, coca farmers who formerly were only interested in leaf cultivation have moved into the production of coca paste and crude cocaine base in an effort to increase economic return and avoid price fluctuations in the raw material. This shift originated from a desire to sell directly to the newly emerging Mexican syndicates, which have increasingly absorbed the profit margins once claimed almost exclusively by the Colombian syndicates.

As with a licit business, drug trafficking organizations try to gain competitive advantages over their rivals at the same time as keeping a step ahead of law enforcement. The substitution of precursor chemicals used in illicit drug manufacture provides an example of the industry's adaptive dynamism. Since the adoption of the 1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, the licit trade of these products has been closely monitored by regulatory agencies as a means of identifying and halting the illicit production of narcotic drugs and psychotropic substances. The illicit industry's response has been to identify alternative precursor chemicals which do not fall under these regulations.

Product differentiation – for example the expansion of the Colombian syndicates into heroin – is another example of the industry's capacity for responding to extraneous shifts in the market. Colombian refined heroin is now the heroin of choice in some US retail markets. The production and export of synthetic methamphetamine by Mexican groups is another example, in this case particularly symbiotic: the Mexican groups make use of the distribution networks originally created by the Colombians for cocaine, to distribute an

Seized cocaine
Photo: courtesy ©HM Customs and Excise

even more profitable product. There is also thought to be a growing degree of cooperation - or of 'strategic alliances' - between the principal organizations in the clandestine industry. Similar to organizations in the licit sector, the rationalization of markets and cooperation in smuggling, and the pooling of intelligence with other illicit industries, are strategies of criminal organisations to reduce their exposure to risk.

Money laundering is a vital component of all financially motivated crime.

The proliferation of smuggling routes and the greater sophistication of trafficking techniques are further examples of the industry's adaptability. Old routes are constantly shifting as new ones emerge. The latest technology is applied in order to ensure the product's safe passage. Today's traffickers rely on the newest communication equipment and on military hardware such as radar scramblers. The cocaine cartels in Colombia are known to have manufactured their own submarines and semi-submersible vessels to reach the lucrative US market.

Destruction of seized cocaine
Photo: UNDCP

4.6. MONEY LAUNDERING

According to the United Nations: "...the need to launder proceeds [of crime] stems from the desire of criminals both to conceal the crime which generated those proceeds, and to be able to enjoy them. The strategy of criminal organizations is to manipulate their illicit proceeds, usually, but not always, through the legitimate financial sector, in such a manner as to make those proceeds appear to have come from a legitimate source. Thus, money laundering is a vital component of all financially motivated crime."[27]

More specifically, UNDCP defines money laundering as the "...process by which one conceals the existence, illegal source, or illegal application of income and then disguises or converts that income to make it appear legitimate."[28] This summarizes the 1988 UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances which defines money laundering as:

- The conversion or transfer of property knowing that such property is derived from criminal activity or from an act of participation in such activity, for the purpose of concealing or disguising the illicit origin of the property or of assisting any person who is involved in the commission of such activity to evade the legal consequences of his action;
- The concealment or disguise of the true nature, source, location, disposition, movement rights with respect to, or ownership of property, knowing that such property is derived from criminal activity or from an act of participation in such activity;
- The acquisition, possession or use of property, knowing at the time of receipt, that such property was derived from criminal activity or from an act of participation in such activity;
- Participation in, association to commit, attempts to commit and aiding, abetting, facilitating and counselling the commission of any of the actions mentioned in the foregoing paragraphs.

Money laundering is not linked exclusively to the illicit drug industry, rather it is a necessary step in almost any criminal venture that yield profits.

Views vary regarding which activities account for the highest proportion of money laundered in global terms – large-scale tax evasion and securities fraud certainly rely on systems of financial secrecy, but the extent to which these activities constitute money laundering is highly speculative. There is an important difference between capital in flight which has been earned legitimately, and capital from criminal activities - in the former case the aim is temporary concealment of the capital, whereas the process of money laundering implies concealment of the illicit origin of capital in order to render it useable.

The offence of money laundering can, of course, only exist when there is legislation that criminalizes it, and such legislation is a recent phenomenon in most countries. Even where the legislation and the investigative capacity to implement it exist, money laundering is a difficult crime to prove. Most legislation requires evidence of three specific elements in order to bring a successful money laundering prosecution - the predicate crime (such as the crime of drug trafficking), the awareness of the launderer of the illegal source of the proceeds, and the action of removing or concealing the funds. For most OECD countries, legislation that specifically targets money laundering was adopted only around the mid- to late 1980s. To date, it has been adopted by relatively few developing countries although many have expressed the willingness to do so. Clearly, this legal vacuum complicates legal controls. As national banking systems become increasingly integrated internationally, the absence of effective money laundering controls in particular countries becomes an issue of global concern.

The goal of money laundering is to obscure the link between the criminal and the crime.

The lack of legislation and implementation are not the only constraints against effective, anti-money laundering controls. Tradition and history also play a role. Financial secrecy, for example, may be seen as a fundamental right of privacy, with the client/banker relationship considered akin to the sacrosanct relationship between patient and doctor. Only in recent years, since particularly notorious cases of money laundering have been exposed and publicized, has legislation in some countries been passed requiring banks to lift bank secrecy rules in the investigation of serious crime such as drug trafficking. In general, offences such as corruption or tax evasion, do not constitute a sufficient basis for access to be granted.

The role of money laundering

The overall purpose of money laundering is to reduce risk. Until the proceeds of crime are 'purified' of traces connecting it with a crime, they represent a major liability to the trafficker or dealer. Unlaundered profits provide a tangible link between the seller and the drug sale, in other words between the criminal and the crime. Therefore, to render the illicit capital useable, this link must be obscured.

The need to legitimize ill-gotten gains has grown in proportion to the expansion of the illicit drug industry, and to the propensity of criminals to operate in the legitimate business world. In the process of laundering their profits for use in the legal economy, criminals simultaneously 'launder' themselves, moving from underworld crooks to apparently bona fide entrepreneurs and financiers. This offers the flexibility to invest either in criminal or legal enterprises, depending on which option offers the best combination of earnings and security.[29]

The phases of money laundering

The process of money laundering can be broken down into three stages – *placement, layering* and *integration*. These are best viewed as one process from which three types of activity can be identified, rather than as three distinct phases. The *placement* stage represents the initial entry of the funds into the financial system.[b] This stage serves two purposes – it relieves the holder of the physical bulk of cash, and it positions the sum in the financial system in preparation for the next stage. In many respects the *placement* stage is the riskiest, for it is then that the chances of discovery are greatest.

b) The immense profits of the illegal drug trade pose a serious problem for the drug trafficker. In large quantities, cash is extremely awkward – US$200,000 in $10 bills weighs 40 lbs. It is also insecure – cash in the form of banknotes can be lost, stolen, or destroyed.

In some cases the first stage of transferring the bulk cash proceeds from drugs may consist of smuggling. The amount of smuggled cash appears to be growing as regulations restricting cash movements throughout commercial and financial institutions tighten. Smuggling is not necessarily laundering but is frequently associated with it.

After placement comes the *layering stage*, which normally consists of a series of transactions designed to conceal the origin of the funds. The *layering stage* is the most complex and the most international in nature. This is the stage where, for example, the money launderer may begin by sending funds electronically from one country to another, then break them up into investments in advanced financial options or in overseas markets, moving them constantly to elude detection, each time hoping to exploit loopholes or discrepancies in legislation, and delays in judicial or police cooperation.

Money laundering does not always need the banking system.

The final stage of money laundering is termed the *integration stage* because it is at this point that the funds return fully assimilated into the legal economy. Having been placed initially as cash and layered through a number of financial operations, the criminal proceeds are now fully integrated into the financial system and can be used for any purpose.

Selected techniques of money laundering

Money laundering is one of the most pervasive criminal activities, not least because it can operate through almost any type of financial transaction, both inside and outside the banking system. Within the three principal phases of laundering a number of specific techniques have been used to circumvent anti-money laundering legislation:

(a) *'Smurfing'*

Countries that have adopted money laundering legislation often set reporting requirements for large-scale cash transactions, with the ceiling normally between US$10,000 - 20,000. This is true for most countries which are members of the Financial Action Task Force.[c] In some countries, in addition to, or instead of having to complete a report on every cash transaction that exceeds a certain amount, bank or financial service employees must complete a "Suspicious Transaction Report" when the nature of the transaction does not correspond to what is known about the customer's personal or business circumstances. 'Smurfing', which also goes by the more formal name of 'structuring', is a technique used for the placement of illicit revenues in countries where cash transaction reports (CTRs) are mandatory. Smurfing consists of breaking down a large volume of cash in amounts less than the threshold of the particular country's reporting requirements, thereby avoiding the requirement to justify the transaction.

Structuring arises from the trafficker's need to launder large amounts of cash. In general the trafficker will organize a number of individuals, or 'smurfs', each of whom is responsible for a quantity of cash. After making a deposit, the smurf will purchase monetary instruments at other banks in the same area. Generally the cash is exchanged for bearer cheques or international money orders, which are then deposited into the trafficker's account by an intermediary of the same organization. Smurfing is labour-intensive, expensive and time-consuming, but it is still used by money launderers because it enables the disbursement of large amounts of bulk cash. In some areas of the world, smurfs form an integral part of the drug trafficking chain. In most cases they need know nothing beyond the amount of cash they are required to convert and their fee, and this makes them especially attractive to the trafficking organizations.

(b) *The use of front and shell companies*

The use of cash-intensive businesses in money laundering is extremely prevalent. Examples of cash intensive businesses include restaurants, hotels, casinos, bars, nightclubs, dry cleaners, retail outlets, video rental companies, vending machine companies, parking lots, and construction companies. Money launderers use these as *front companies* which actually carry on business where illegal profits can be co-mingled with revenues derived from legitimate undertakings. Front companies are almost always a component of medium-to-large-scale money laundering operations, and are used in both the placement and layering stages of the laundering process.

Money launderers also use *shell corporations* - businesses which have no commercial purpose. They are incorporated (normally in offshore centres which ensure anonymity) to conceal the true ownership of accounts and assets owned by the criminal organization.

(c) *Accounting techniques*

Over- or under- invoicing is an important money laundering technique which is often used in the context of front companies. It is also instrumental during the placement stage of money laundering, when import/export transactions are common. A company may purchase merchandise from a foreign company at an artificially high price. The difference between the invoice price (the artificially high price) and the real price of the goods or services is deposited in a special offshore account. This technique is not exclusively a money laundering technique and is used by those who wish to evade taxes and duties. It can also be termed 'overstatement of reported revenues'.

(d) *Private investment techniques*

Depositing funds in an offshore account or funneling them through a front or shell company will generally be a temporary measure, until such time as the criminal wishes to repatriate the funds. Repatriation can be done using a 'loan back' method, whereby a drug trafficker with illicit funds in a foreign account decides to make an investment, which he secures with a down payment of legitimate funds. To pay the balance, he takes out two loans, one, legitimate, and the second from the foreign bank holding his illicit funds (probably offshore). He then repays the loans plus interest as if they were both legitimate. In some cases these repayments may be tax deductible. The income from the initial investment is sufficiently documented to appear entirely legitimate, and the trafficker is free to use it in any way he chooses. As he repays the loan of his initial illicit funds, they are again available for him to 'borrow' and the cycle can be repeated.[30]

(e) *Use of non-bank financial institutions*

In some countries, currency exchange houses are not obliged to abide by the same regulations imposed on the ordinary banking system. Drug traffickers exploit such loopholes, converting cash into other currencies. Remittance houses or financial services companies are used to cash the cheques (usually made payable to the bearer) that the smurfs have acquired from the banks. Gold, gems and other precious metals are also considered highly liquid assets and can be purchased through dealers and easily converted into cash. Insurance companies have also been used as a vehicle for laundering: the launderer purchases a life insurance policy with a large cash surrender benefit. He will pay for the premium in cash and, shortly after receiving the policy, will cash it in and request that payment be made. Similar scams are carried out using travel agencies and casinos: launderers purchase expensive round-trip airline tickets and return them for a cash refund upon completion of

Offshore financial centres are extremely appealing to the illicit sector.

Money laundering is essential to drug traffickers.
Photo: UNDCP

c) Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, the Gulf Co-operation Council, Iceland, Ireland, Italy, Japan, Luxemburg, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States of America.

a portion of the journey; similarly, large cash sums can be converted into casino chips which are subsequently cashed in.

(f) *Investment in government or treasury bonds*
Trade in government or treasury bonds can be used as a money laundering technique in itself or as part of a larger scheme. These bonds are debentures issued by the government for a particular (usually fixed) rate of interest for varying periods of time. They are bearer bonds, that is they are a transferable instrument payable to the bearer, therefore can be bought, sold or exchanged anonymously.

(g) *Opportunistic lending/acquisition of companies on the verge of bankruptcy*
The acquisition of companies in crisis is a technique of money laundering which occurs in periods when lending is tight, for example after a sharp rise in interest rates. When banks place tight restrictions on lending, business owners in difficulties may turn to less tightly regulated sources of credit, such as loan sharks. In such situations, the money launderer functions merely as money lender (at higher than bank interest rates) or may buy partial or total management control of the ailing business. In the latter case, the launderer will draw continuing benefit from the cover of a 'clean' front company.

(h) *Exploitation of underground banking systems*
The term 'underground banking' refers to systems of deposit and credit which provide for non-guaranteed international transfers carried out parallel to, but outside the formal banking sector. They are normally not illegal in the countries in which they are traditionally located (the Asian subcontinent in particular, but also China and Latin America). They are favoured by launderers because they operate informally on the basis of trust and confidentiality, they are cash based and leave no paper trail and often fall out with the regulatory scope of the banking system.

The role of offshore centres
The association between offshore centres and money laundering activity is frequently made and is well-founded, although is not always well understood. Offshore centres are frequently "... financial systems whose banks have external assets and liabilities that are out of proportion to the current account transactions of their domestic economies and where the ratio of bank external assets to exports of goods and services is more than three times the world average."[31]

The legitimate role of offshore financial centres in the international markets is threefold – to provide a centre of domicile for international companies to incorporate commercial holding companies and overseas subsidiaries in the most advantageous fiscal and/or exchange control climate; to exploit international capital and money markets with greater freedom of action than is possible in the country of business origin; and to act as secure havens for international earnings, savings and other liquidity seeking international investment in a tax neutral environment.[32] In as much as these functions contribute positively to the smooth functioning of the international capital market, they have equal appeal for the money launderer.

The additional attributes of an offshore centre for a money launderer are: (a) the high degree of secrecy within which all financial transactions are conducted; (b) their role as a point of transit for money; and (c) their status as tax havens for non-residents, which serves the double function of

Photo: WCC Photo ©Peter Williams/WCC

keeping the owner of the money physically separated from the money and safe from any taxes.

Identifying an offshore centre is not as easy a task as it may seem. The International Monetary Fund applies the term 'major offshore centres' to the following countries: the Bahamas, Bahrain, the Cayman Islands, Hong Kong, the Netherlands Antilles, Panama and Singapore. Smaller offshore centres include: Dublin, Cyprus, Madeira, Malta, Malaysia's Labaun Island, and Thailand's Bangkok International Banking Facility. London is sometimes considered an international offshore financial centre for non-resident investors because a large share of international activity takes place in the city, because it does not impose reserve requirements on Eurocurrency deposits, and it does not levy withholding taxes or report information to foreign tax authorities on the interest income of non-residents. The largest offshore centres are London, Nassau, Hong Kong, Singapore and Luxembourg.[33]

It would be wrong to assume that offshore centres are peripheral markets and are used only for specialized and sometimes illegitimate services. In fact, despite their small number relative to the locations of conventional financial centres, in value terms, sums deposited in offshore centres are extremely high. By some estimates, more than half the world's stock of money transits through offshore centres, about US$2 trillion of private wealth (20% of total private wealth) is invested in these centres and around 75% of the captive insurance industry is located offshore. In 1993, banks had US$1.5 trillion of external assets invested offshore, representing about 30% of those in industrial countries, while offshore-based investment funds had around US$1 trillion of assets under management.[34] The percentage of these amounts which is derived from illicit drug trafficking may be marginal in comparative terms, but is probably rather large in absolute terms.[d]

Trends in money laundering
Two trends have characterized money laundering in recent years. The first of these is the increasing professionalization of the function. The United States Senate Committee on Government Affairs stated: "Money laundering is now an extremely lucrative criminal enterprise in its own right. The Treasury's investigations have uncovered members of an emerging criminal class – professional money launderers who aid and abet other criminals through financial activities. These individuals hardly fit the stereotype of an underworld criminal.

Money laundering undermines the integrity of the financial system.

This has resulted in the development of a professional criminal class of money launderers which includes accountants, bankers and lawyers. They need not become involved with the underlying criminal activity except to conceal and transfer the proceeds that result from it."[35]

Criminal organizations increasingly subcontract the task of money laundering to specialized professionals because the methods required to circumvent law enforcement authorities are becoming ever more complex. Professionals are used not only to conceal the origin of the source of the proceeds, but to manage the subsequent investment into legitimate real estate and other assets. It is believed that there has been a steady increase in the standard fees paid to money launderers, from 6 – 8% at the beginning of the 1980's to up to 20% by the mid-1990s. [36]

The internationalization of money laundering is the second major trend, and has been brought about by two factors – first, the integration of financial markets into a complex, global entity; and second, the effort by traffickers to avoid detection by concentrating operations in countries where enforcement is weak and legislation absent or embryonic. Unfortunately, many countries fall into this latter category, in particular those classified as

d) The Cayman Islands, population 30,000, have the seventh largest deposit base in the world after the United Kingdom, the USA, France, Germany, Switzerland and Japan; there are 550 banks in the Territory, only 17 of which have a physical presence. Under the regulations of the jurisdiction, legislation designed to control money laundering only applies to those banks which have a physical presence. Total assets held by Cayman banks in 1994 were approximately US$430 bn.

emerging markets. In becoming more internationalized, money laundering is in fact simply following the global macro-economic trend of legitimate goods and financial services. It works to the benefit of the launderer in as much as it creates more scope to move from one jurisdiction to another, taking advantages of gaps in legislation and discrepancies in regulatory control.

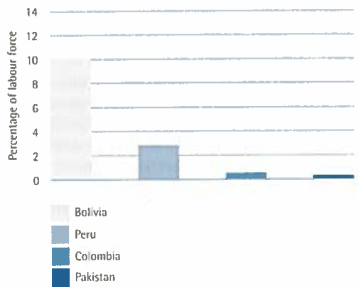
Overall, perhaps the single most significant impact of money laundering on the legitimate economy is that it undermines the integrity of the financial system and this, depending on the extent and the rapidity of the loss of confidence, can have devastating consequences at national and international level.

4.7. THE IMPACT OF ILLICIT INCOME ON NATIONAL ECONOMIES

Income generation

The absence of reliable data makes it difficult to calculate the number of individuals employed in the illicit drug industry. Due to the clandestine nature of the trade, estimates very rarely cover the full range of services which comprise the illicit drug industry. Some estimates include farmers, marketers and traffickers, but exclude individuals employed for legal and financial services. There are also methodological problems – it is clear that any productive endeavour creates employment which falls outside the industry – the multiplier effect. A simple example of this would be a food provider or restaurateur based on the road between a coca market and a coca plantation.

Fig. 4.5: The illicit drug industry as employer in the early 1990s (Percentage of economically active population).



Sources: UNDCP, Economic and Social Consequences of Drug Abuse and Illicit Trafficking: An Interim Report. Note by the Secretariat (E/CN. 7/1995/3).

In Bolivia, it is thought that some 60,000 farmers cultivate coca leaf. Thousands more are involved in harvesting, selling, and transportation. As with other agricultural industries, farm-level employment in the cultivation of coca leaf is varied, with day labourers, migrant labourers, and tenant farmers all contributing to the collective effort.[37]

The Illicit drug industry and the balance of payments

As with any commodity traded internationally for local or hard currency, illicit drugs can have a macro-economic effect on exporting and importing countries. In exporting countries, one of the major impacts is on trade and the balance of payments, because the illicit export of drugs brings in dollars or other hard currency which may affect different aspects of its trade, financial and monetary cycles.

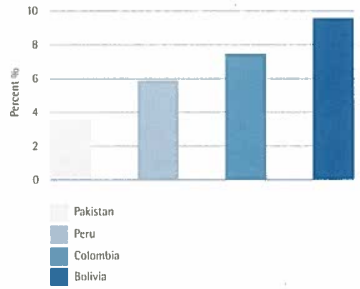
A country's balance of payments is a calculation of the credit and debit transactions which it has with foreign countries and international institutions. As this record typically involves payments or receipts in foreign exchange, it is one of the best places to chart and measure movements of a commodity which is traded in foreign exchange. However as trade in illicit drugs is not recorded, balance of payments variations can give only indirect clues as to the size of the trade and its impact.

When viewed in terms of macroeconomic indicators, the impact of the illicit drug industry on a producer country's trade balance tends to be positive for the simple reason that exports of illegal drugs generate inflows of foreign exchange. However, for small economies in which illicit drugs comprise a major portion of export earnings, there is also the risk that the price of the domestic currency will be inflated because of considerable international demand. The illicit export of drugs

can thus harm legitimate export-oriented, import substituting industries. The so-called "Dutch Disease," refers to a market distortion resulting from a boom in an isolated sector of the economy which causes stagnation in the other core sectors. It is cited in terms of the illicit drug industry because the disproportionately high foreign exchange earnings of illicit drug production can result in a stagnation of exports in non drug-related sectors. By increasing the real exchange rate, thereby preventing or reversing diversification of the economy and endangering the operations of other industries, these economies eventually become dependent upon illicit drug exports. This would further constrain the income-generating opportunities that contributed to a farmer's original decision to start illicit cultivation, extracting a net cost on the country.[38]

The relatively small portion of profits from illegal drugs which are brought into the country can itself be distortional. It appears that, rather than for productive investment porposes, the small share of profits brought into the producer countries is used to maintain the position of the drug trafficking organizations or to engage in non-productive (conspicuous) consumption for its members. One analyst writes of Myanmar, "Although funds for reinvestment do come back, these, together with whatever profits are derived from the local trade, are insufficient to build factories, tourist attractions and other infrastructure developments, or to contribute significantly to capital development."[39]

Fig. 4.6: Apparent "benefits" of illicit drug industry in the early 1990s (income generation in percent of gross domestic product).



Source: UNDCP and UNRISD.

This is precisely the reason why analysts are skeptical of the assumption that any producer country benefits from illicit drug exports. Namely, the money is not allocated to investments which are considered productive from the aspect of economic development. By placing large amounts of capital in the hands of investors whose desire to maximise returns could be superseded by the need to hide the money or invest it quickly and secretly, the result is a sub-optimal investment. Patterns that result in unsound investments necessarily redirect income from sound investments to risky and lower-quality investments which is inevitably detrimental to economic growth. Further, it was shown in a number of countries that existing income disparities widen as a result of the illicit drug industry.

For the major producers – Bolivia, Peru, Afghanistan and Myanmar – illicit drug exports make up a large percentage of export revenues. For example, since 1986, Bolivian coca-cocaine exports are believed to have represented between 28 and 53% of the value of total exports that include the value of coca-cocaine exports, or between 39 and 112% of those that exclude them.[40] In Afghanistan and Myanmar, it is highly likely that the percentages are higher since neither country has important legitimate exports. Pakistan has a larger economy. Still, illicit drug exports in 1992 are thought to have amounted to US$1.5 bn, a sum equal to one-fifth of the US$7.2 bn of exports.[41] Countries such as Mexico and Thailand have fairly diversified economies with many sources of foreign exchange; thus, while the illicit drug industry certainly affects their economies, the impact is likely to be less prominent than for the countries mentioned previously. In between is Colombia. It has a fairly large and diversified economy, as well as a thriving underground economy that survives largely because of the production, manufacturing and trafficking stages of the illicit drug industry.

Distortions are created in consumption, investment and competition when money from the illicit;

sector enters the legitimate financial system, as this money appears to behave differently to licit sector capital.[42] A greater proportion of it is likely to be consumed, as opposed to saved or productively reinvested, than capital created legally. This can create problems in countries with low rates of savings and capital formation.

One of the reasons why 'black' money behaves differently from licit sector capital is because the investment decision often prioritizes disguising the capital over the maximization of profits. The availability of illicit funds for investment may also interfere with competition: licit business can be crowded out through intimidation or corruption, while criminal entrepreneurs with liquid cash have no need to borrow and can undercut the prices of legitimate competitors .

Distortions also occur on the monetary side. Unexplained currency surpluses can occur when there is a high degree of underground activity in the economy. Sales of drugs, and laundering profits from these sales, undoubtedly contribute to the size of an underground economy. In many countries illegal drug expenditures are thought to account for the largest share of the illegal markets.[43] Total illicit drug expenditures at the retail level in the USA alone are estimated at US$50 bn per annum in the mid-1990s.

Large-scale movements of illicit sector capital, particularly in small economies, can disable a government's ability to plan and control monetary policy. For example one of the traditional tools of macroeconomic stabilization is a Central Bank's capacity to make credit (and therefore consumption and investment) more or less expensive by increasing or decreasing the money supply. However when the underground economy is large in relation to the legitimate one, these conditions no longer apply. Similarly, the two most important data sets governments use for planning – the balance of payments and national income accounts – become worthless when large international flows of liquidity, goods and services are unaccounted for. Decreased financial control undercuts financial credibility and as a result, the benefits to a given country of drug-related capital can be more than offset by reduced access to legitimate sources of finance. Small economies are more vulnerable to large amounts of illicitly derived capital flowing through the system because the relative proportion of illicit to licit capital is greater and, it could be argued, because small economies are more in need of accurate planning and policy.

In the case of plant-based drugs, an average of less than 3 – 5% of the income generated from the final retail sales of illicit drugs returns to the country of origin. In countries where illicit trafficking in drugs is entirely dominated by nationals of other countries from the point of export, the percentage is likely to be even lower. Such is thought to be the case with Myanmar.[44] Not only does a small fraction of income remain in the country, the industry creates many negative local distortions. In Myanmar it is thought that heroin is often "... provided or discounted for services ranging from prostitution, protection, criminal acts and other non-standard work. As Myanmar is already one of the world's poorest countries, paying for disruptive activities with a substance that itself engenders more anti-social behaviour exacts a heavy toll on the lives of the people there".[45]

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Environmental effects of illicit crop cultivation

BOX 4A

INTRODUCTION

'The challenge to preserve our vulnerable environment is being increasingly hindered by destructive practices. Each year more than 11 million hectares of the Earth's remaining tropical forest are cleared and converted to other land uses or left unproductive. If current trends continue, present forest reserves will be consumed in less than 40 years.

ILLICIT CULTIVATION AND PROCESSING METHODS

The destruction of forests can be attributed mainly to deforestation and to soil degradation. Deforestation and water pollution in the tropics may be caused by a variety of factors such as increased population pressure, shifting cultivation patterns and the extraction of economic resources. Rain forests may be cleared to permit dams and large-scale hydrological projects, mining and smelting operations, the gathering of fuel wood or logging for domestic and export purposes. Another significant contributor to forest depletion and to water and soil pollution has been the cultivation and processing of narcotic crops – coca and opium poppy. The exact type of environmental damage depends on how and where drug producers grow plants, process them chemically and dispose of waste products.

Crop sites are usually chosen in inhospitable and concealed areas to avoid detection by law enforcement agencies. In the case of coca, the plant's hardiness renders it suitable for growing even on sloping ground in high forest areas. In addition, this type of land usually provides a better quality and quantity of alkaloid, yielding a better crop. Growers favour these sites due to the better drainage provided as well as to their relatively secluded setting. There are various methods used by cultivators to clear land in preparation for planting. These methods involve manual and petrol/diesel-fuelled machinery, but the most widely used method, commonly referred to as 'slash-and-burn' agriculture, involves the felling and burning of trees. This deforestation practice generally leaves no remaining vegetative matter to replenish the soils, thus rendering them sterile.

During the cultivation of coca plants and opium poppy, growers use powerful herbicides, pesticides and fertilizers to protect and enhance the growth of their crops, sometimes without any technical expertise or consideration of the harmful effects inflicted on the environment. Harvesting of the coca crop, which normally takes place three or four times annually, is nothing more than a defoliation that further exposes the soil to wind-borne erosion during dry weather. Crops require intensive weeding and tillage after every harvest; weeding is usually carried out by clearing the vegetation with a shovel or pickaxe and then dragging the cut weeds, along with part of the loose soil, down the slope. In some cases, the top 15 centimetres of soil is removed. Thus the soil in the coca fields becomes stripped from the impact of rain.

Each year, using unsafe and illegal methods, cocaine and heroin processors dump vast quantities of toxic chemical substances and waste by-products of the extraction process into countless small streams, rivers and water courses, poured into local sewage systems or septic tanks, or buried underground. For example, in the process of maceration and washing coca leaf to make coca paste, processors discard large quantities of gasoline, kerosene, sulphuric acid, ammonia sodium carbonate, potassium carbonate and lime on to the ground and into nearby waterways.

CONSEQUENCES

Deforestation may have severe environmental repercussions such as the loss of soil through

erosion, alteration of the hydrological system, increased flooding, reduction in hydropower potential, difficulties in water transport and reduction in hydrobiological potential. The 'slash-and-burn' deforestation method has changed river flows, stripping off top soils and exposing the underlying sand soils. Deforestation leaves a thin layer of remaining crop soil – generally inadequate to absorb sufficient water to create a secure foundation against erosion. The accelerated water runoff leads to exaggerated silt build-up in rivers and reservoirs, as well as increased downstream flooding. Burning the debris left by deforestation brings with it other problems, such as air pollution and the loss of soil nutrients.

The survival of indigenous wildlife is also imperilled – according to the Global 2000 Report to the President of the United States of America, "... extinctions of plant and animal species will increase dramatically. Hundreds of thousands of species – perhaps as many as 20% of all species on Earth – will be irretrievably lost as their habitats vanish, especially in the tropical forests". The destruction of Amazonian forests for coca cultivation contributes to the loss of rare plant species from which future pharmaceutical drugs and other human benefits may be developed. One in six prescription drugs has a tropical plant source as its active chemical. The world relies almost exclusively on 20 plant species as primary food sources, many of which are of tropical origin. However, today the present genetic constitution of some plants has produced species much more susceptible to disease. Breeding the original genetic make-up back into the plant is an important defensive mechanism but, without the availability of rare species of tropical flora, the chance of combating such disease is reduced.

Peru is a prime example of the damage being inflicted on forest land. A typical hectare of Peruvian rain forest supports as many as 300 species of tree as well as record numbers of species of butterflies, amphibians, reptiles, birds and mammals. However, the Huallaga region in Peru has evolved into the world's primary illicit source of coca. The intensification of coca cultivation in the Huallaga flood plain and adjacent low hills, as well as vigorous expansion into highland forest environments, is responsible for the annihilation of nearly one million hectares of tropical forest resources. Estimates of the total Peruvian land area devoted to coca cultivation today start at 125,000 hectares, 65% of which are concentrated in the Upper Huallaga valley. The region is now firmly dependent on the production of illicit coca which has replaced previously grown crops of cocoa and coffee. In November 1987 devastating floods in central Peru revealed the excessive deforestation that has taken place. Torrential rains caused major landslides, blocked roads and killed scores of lowland residents. Post-flood inspection of the Huallaga watershed revealed extensive new sedimentation along rivers and streams throughout the region.

Coca planting may cause particularly widespread erosion. The removal of natural vegetation combined with soil exhaustion from intensive coca cultivation have depleted the basic soil nutrients – nitrogen, carbon and essential minerals – leaving behind highly infertile soils. Fragile, steep-sloped mountain environments, where soil is thin, are particularly vulnerable. Soil erosion may wash large amounts of sediment into the rivers, with severe repercussions for marine life. But most of the contamination of the soil, and especially of the water, is produced during the processing of the leaves to extract alkaloids or, in the case of opium poppy, in the conversion of morphine base into heroin. The so-called Golden Triangle region of Thailand, Lao PDR and Myanmar contains some five million hectares of forest land. This mountainous terrain lends itself to increasing opium poppy cultivation. Opium poppy crops are not as hardy as coca crops due to the faster deterioration of the opium crop soil. Consequently, after deforestation has been carried out, new opium crops are established every two to three years. Also at risk are the important tributaries and headwaters of the region's major rivers, all susceptible to the negative aftermath of crop cultivation and laboratory processing. Present-day processing of heroin takes place much more often in the growing area as opposed to earlier decades when the production chain was geographically separate.

Experts estimate that hundreds of thousands of tonnes of chemicals are used annually in cocaine production in the Andean region, roughly representing about two tonnes of waste by-products generated for each hectare of illicit coca cultivation. Colombia, the Andean region's primary processor of cocaine base and cocaine hydrochloride, has suffered considerable damage to the Llanos region ecosystem from the dumping of chemical wastes generated in the processing. Each year, more than 20 million litres of ethyl ether, acetone, ammonia, sulphuric acid and hydrochloric acid-primary chemicals, used to produce cocaine hydrochloride, are discarded from jungle laboratories into the nearby streams and tributaries that feed the vast Amazon and Orinoco rivers.

The chemical pollutants entering rivers and streams muddy the water and block vital sunlight from aquatic plant life, while the compounds within the fertilizers damage waterways by producing algae. According to ecological experts, many of the tributaries affected by contamination are now almost entirely devoid of many species of plant and animal life. Rivers and streams experience a decrease in water flow during the dry season, possibly depriving the surrounding forest of an adequate water supply. Contaminated water used for irrigating food crops not only compounds the environmental damage but poses a substantial public health hazard. Laboratory operators often accumulate waste chemicals during the synthesis of clandestine drugs. In the case of the Huallaga Basin in Peru, few fish are available, much of the surviving stock is unfit for consumption, and the quality of potable and irrigation water has been lowered as a result of the dumping of agrochemicals. The chemical wastes alter water pH, reduce oxygen, and lead to acute poisoning of fish and plants with possible genetic mutations in some species. Clandestine laboratories also produce explosions, fires and toxic fumes, causing irreparable damage to human health as well as to the environment.

Although the environmental damage caused by illicit drug production is minimal compared to that produced by other causes such as the production of chlorofluorocarbons, it must be added to the long list of harms inflicted by humankind upon the natural world. Tropical deforestation, increasing soil erosion with decreasing fertility, the destruction and contamination of waterways and the loss of genetic diversity – perhaps forever – are all repercussions of the continuing abuse of our environment.

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On corruption and organized crime

BOX 4B

Professor Amartya Sen

INTRODUCTION

Corruption is not a new phenomenon, nor are ways of dealing with it. Ancient civilizations provide evidence of widespread illegality and corruption. Some produced considerable literatures on ways of reducing corruption, especially of public officials. Plato inclined towards cultivating a sense of duty, though he conceded that this was "no easy task".[1] Many bureaucrats in ancient China were paid a 'corruption-preventing allowance' (called *yang-lien*) to give them an incentive to remain clean and law-abiding.[2] Kautilya, the Indian political analyst of 4th century BC, carefully distinguished between forty different ways in which a public servant can be tempted to be financially corrupt, and how a system of spot-checks followed by penalties and rewards could prevent these activities.[3]

First, the nature and role of corruption and illegality must be discussed, and then the policy issues they raise. The ultimate question is, of course: what is to be done? But the prior question is: what is the nature and social basis of the phenomenon to be confronted?

TRANSACTIONS, TRANSFERS AND FUNCTIONS

It is useful to distinguish between two different types of illegal transactions involving financial gains for the perpetrators: (1) '*purely transferal*', and (2) '*partly functional*'.[4]

The former category involves a variety of unrequited and enforced transfers from the victims to the criminal operators. This comes closest to organized robbery – the strong-armed bosses demand payment and threaten terrible consequences if these demands are not met. Since no real functional service is offered in return, these transfers must, as a general rule, be *forced* on – not voluntarily chosen by – the victims. For example, a shopkeeper may have to pay some money to the local criminal organization – the alternative might be the prospect of being harassed or ravaged by the operators.

In contrast, the second category of transactions – the *partly functional* transfers – may or may not be forced in this way, since the provider offers some real service to the payers, in return for financial considerations. This may sound like a market exchange, and in some sense it certainly is that. However, the illegality arises from the service being of some prohibited type, e.g., arranging a government contract through bribery, or helping to remove a governmental prohibition through graft, or threatening and penalizing a debtor or a competitor for a 'fee'.

Not all *transferal* activities must necessarily be against social interest – that would depend on the nature of the distribution that prevails before the transfers, and on the nature of the redistribution between the beneficiaries and the losers that is brought about by these transactions. Robin Hood's illegality did not make his activities necessarily immoral. But in the context of organized crime, the proper analogy is more likely to be Genghis Khan than Robin Hood. Given the nature of the ultimate beneficiaries of these transfers, it would be hard to make a case for them on ethical or political grounds. But the issue of inequality – and possible injustices – in perfectly legal distributions has to be borne in mind, so that the anti-criminal argument is not turned into an unqualified defence of inequities that may be terrible but entirely legal.

Partly functional transactions are generally harder to analyse. Such activities might involve large payments to the providers, but nevertheless they may be in the interest of the payer as well as the provider. Indeed, the incentives of the different parties can make these transactions hard to deal with through law enforcement.[5] Many cases are, in fact, mixed – of some hybrid type. Functional roles are often combined together with transferal features. The popular image of corruption as function-less transfers, variants of thievery or robbery – examples of pure 'kleptocracy' – can lead to serious underestimation of the strength and resilience of corrupt and illegal activities. Policy has to be better informed.

FUNCTIONALITY AND SOCIAL ASSESSMENTS

The next question concerns the social good or harm done by '*partly functional*' transactions. The presence of functionality must not be confused with the social productiveness of these illegal activities. The services performed can benefit the payer, but usually at the cost of some others, so that there may, or may not, be a net gain for society. Securing a contract for a person or a firm can benefit that person or that firm, but this can be at the expense of other persons and firms, and also perhaps at the cost of the consumers, if the purpose of these activities is to establish monopoly advantages. Functionality explains why the service is valued by – and is in the interest of – the individual recipient and why that person or firm may be willing to pay a considerable price for it. But the existence and importance of that contribution do not indicate that the society is necessarily better off as a result of this function being performed.[6]

However, in some cases an illegal and corrupt activity can also be beneficial to the public at large. It is, in fact, quite instructive to understand (1) the different ways in which such a social contribution might come about; and (2) what the limitations of such contributions are (and how they may combine desired effects in some fields with terrible consequences in others). Two particular areas of contribution are especially worth considering.

First, some restrictions imposed by a government may be wrong-headed and even thoroughly counter-productive. Finding ways of violating them could well be a positive contribution. Only with optimal government policies would it be plausible to argue that any way of getting round them must be socially bad. Since government policy, in fact, is often dictated by specific pressure groups and distorted by defective social or economic reasoning, the possibility of doing good through illegal transactions cannot be ruled out.

That possibility has to be borne in mind. But in normal circumstances it may be difficult to be sure that some particular law or regulation is best violated. Indeed, given the nature of democratic politics, there is at least a strong *procedural* reason for not taking the law into one's own hands. A note of caution is therefore in order, while recognizing the real possibility that bad laws can make illegality acceptable and desirable.

The second issue relates not to bad laws, but to social functions that a strong-armed organization can perform in supporting mutually beneficial transactions. The operation of the market system requires arrangements for enforcement, to prevent one contracting party from letting others down. Such enforcement can either come from the government, or – alternatively – be based on honour and trust.[7] But when (1) the reach of government operations is limited, and (2) feelings of trust are not well developed, an outside organization may jump into the breach and provide a socially valued service. Depending on the nature of the interrelations, such enforcement may end up being in the interest of all the parties; each may need the 'assurance' that the others are also doing the appropriate thing.[8]

This possibility tends to muddy the waters. It may easily turn out that, despite the private valuation of a service like this and its social role, it does not actually make a *net* contribution to society. This may be because of the distortion brought about in the allocation between firms, or because of the very high price that is charged for the service. While the parties directly involved may all benefit, there could be losses sustained by others who are not in that group (for example, consumers who are faced by a collection of producers kept in line by the discipline of enforcement). There can also be other negative effects, such as subversion of the

legal economy, and expansion of other criminal activities undertaken by that enforcement organization. An entrenched and powerful criminal association can combine some functional good deed for a particular group, with a lot of transferal distortions as well as socially bad consequences on others. While recognizing the functional role of extra-legal organizations (and distinguishing them from kleptocracy), it is also important to understand that functions that do good to some can, at the same time, do terrible things to others.

CIRCUMSTANCES AND RESULTS

The challenge of corruption and illegality has to be seen in fuller terms, taking into account the functional roles (corresponding to useful services for some) as well as the pure transferal features (corresponding to thievery or robbery). Both the development and the sustenance of organized crime turn on making skilful use of the functional roles, typically supplemented by bullying activities in generating transfers.

A dual economy involving widely different social, economic and financial backgrounds can provide an unusually wide scope for extra-legal organizations. The process is helped by several specific features.

First, diversity of values and traditions between regions (for example, variation in what can or cannot be socially accepted) adds to the scope for mixing respectability with underground activities. The connection of corruption with value diversity has also been observed in many other countries.[9]

Second, the social commitment (1) to help poorer regions to develop economically, and (2) to make systematic governmental transfers from the rich to the poor, are important political goals, but they can also add to the possibility of extra-legal transactions to influence the distribution of public funds.

Third, multiplication of rules and regulations, with the object of promoting a more just social order, can well lead to a situation where illegal activities offer high financial rewards from bending regulatory authorities in particular directions.

Fourth, the need for the arrangement of enforcement of business deals in making markets function can be particularly acute in a backward region where the values and conventions of modern market ethics may be still quite under-developed.

CONSEQUENTIAL ANALYSIS AND DEONTOLOGY

In seeking remedies, the reform of governmental policies is undoubtedly important. It is, of course, not right that all other social goals should be sacrificed for the single cause of minimizing crime and corruption (important as it is), but it is particularly necessary to examine and scrutinize whether the rules, regulations and other policies do, in fact, effectively promote the purpose for which they were devised, without causing more problems than they solve. Economic ethics have to focus more on the actual effects of policies than on their inherent attractions.

Reform of behaviour modes is very difficult to bring about through a policy decision. "Thou should behave better" sounds like a hopeless solution to the problem of crime and graft. That seems clear enough. What must, however, be resisted is the claim, which is often repeated, that human behaviour is basically so self-centred, so invariably oriented towards personal gain, that no real prospect of behavioural reform actually exists. To talk of any code of ethics is, in this view, a waste of time. Or worse.

Is this cynicism justified? There is, in fact, plenty of evidence from many spheres of economic, political and social behaviour that various constraints play an important part in shaping human behaviour.[10] Even criminals bent on making money typically follow rules of good 'gang' behaviour, and 'honour among thieves' is not just empty rhetoric. In proposing socially useful codes of conduct, what is attempted is not the conversion of thoroughly self-centred people into thoroughly altruistic human beings. It is a question of some shift in focal variables in the multiple-objective behaviour that characterizes most human choices. That 'extra' element is present in every type of human behaviour related to social relations – involving family, friends, colleagues, political allies, fellow businessmen, other gang members, and so on.

However, efforts in the direction of deontology, important as they are, cannot be a substitute for institutional reforms of other types. The reorganization of the economy, and the establishment of useful rules governing the connection between business and politics demand legal and institutional attention, and attempts in this direction must not be given up in the hope of behavioural reform. Indeed, the institutional reforms and behavioural codes have to be seen as complementary to each other, and each can reinforce the other very substantially.

Finally, one of the important interconnections between governmental functioning and deontological values relates to the influence of morality and behaviour of high-ranked public servants and political leaders. The sense of cynicism that pervades a society, when it is generally thought that high-placed leaders are pursuing private gains from corrupt practices, can be deeply demoralizing. It can also profoundly affect the behaviour modes the society finds acceptable or unacceptable.

Writing in China in 122 BC, the authors of *Hui-nan Tzu* put the problem thus:
"If the measuring line is true, then the wood will be straight, not because one makes a special effort, but because that which it is 'ruled' by makes it so. In the same way if the ruler is sincere and upright, then honest officials will serve in his government and scoundrels will go into hiding, but if the ruler is not upright, then evil men will have their way and loyal men will retire to seclusion".[11]

This is, of course, only part of the problem – corruption and organized crime have many interrelated features. But within its context, that piece of ancient wisdom remains as relevant today as it was two thousand years ago.

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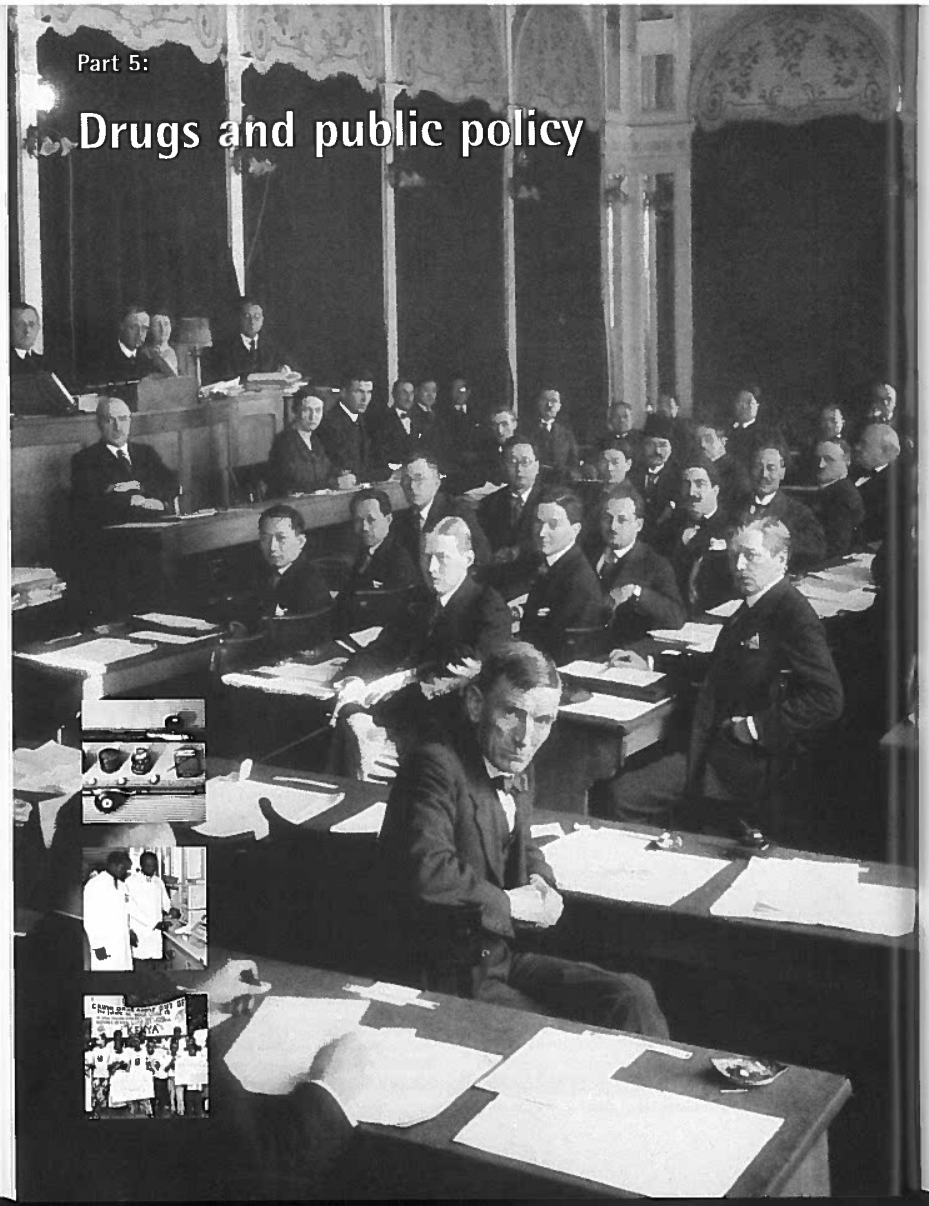
Part 5:

Drugs and public policy



5.1. ROLES AND RESPONSIBILITIES

The function of law

All societies function through systems of formal and informal controls. Informal controls arise from consensus, shared values and moral standards, concern for individual and collective welfare and a common interest in peaceful cohabitation. Formal controls are exercised in the form of laws which, in a democracy, also arise from consensus, and are designed to reconcile the goals of individual freedom with the interests of collective welfare. In this respect the regulation of the manufacture, possession and use of specified drugs is no exception. Prohibitions are exercised through the criminal law; they rely on persuasion and coercion and are intended to motivate compliance by raising the likelihood that those who fail to observe the law will be punished. Drug regulation, exercised through civil law, places limits on potency and form, on commercial behaviour and on times and places of sale.[1] Whereas drug laws lay down the rules for conduct, drug policy lays out a programme for public action which supports and facilitates implementation of the law.

Like any legislation that touches on the domain of personal behaviour, drug control laws are problematic and often controversial. The three principal areas of controversy can be summarized as follows: the relationship of morality to the role and function of law; the boundary between the private and the public domain; and the attempt to universalize drug control legislation.

Law and morality

The areas of confusion or ambiguity between law and morality derive in part from a shared vocabulary. Words such as duty and obligation belong to both, yet moral standards of duties and obligations are often more rigorous than legal ones. The existence and content of a law are determined by elements that make it subject to moral evaluation, but do not guarantee any moral value. Laws can be just or unjust, and just laws can be applied in an unjust manner. Statements involving concepts such as freedom and common good are hard if not impossible to evaluate objectively, since they themselves embody personal values – they express wishes, hopes, ideals, attitudes and preferences but they do not describe the world.[2]

The relationship between religion, law, science and morality has been a preoccupation of philosophers and political thinkers throughout the centuries. The Greeks were the first civilization to synthesize these elements in the model of the *polis* or city state – a concept with its origins both in myth and in the study of natural science. Indeed the definitions of most modern political ideals – such as justice, liberty, constitutional government, respect for the law rather than the ruler as sovereign – began with the reflections of Greek thinkers upon the institutions of the city-state where, it was believed, unless civil law was in accordance with moral law, tyranny (the worst of all evils) would ensue.

In Islamic society, for example, religious and civil law are bound inseparably together, whereas for the Christian, human law is separate from and subservient to divine law. Thomas Aquinas (1225 – 1274) considers that human law, unlike divine law, does not automatically merit our respect and that its legitimate claims to our obedience depend on moral considerations that are independent of it. He claims laws are just when they serve the common good, distribute burdens fairly, show no disrespect for God and do not exceed the law maker's authority. Unless they meet these criteria, laws are unjust, and do not 'bind in conscience'. In his *Treatise on Law* Aquinas writes, "Law is nothing else than an ordinance of reason for the common good, promulgated by him who has the care of the community".

Drug laws lay down rules for conduct, drug policy lays out a programme of action.

International law – which by its very nature must unite widely differing cultural and religious traditions – owes much to the eighteenth century European movement known as the Enlightenment,

whose aim was to bring morality and politics as far as possible within the scope of rational inquiry. Thus, if Aquinas sees God as the source of morality (in law as elsewhere), Immanuel Kant (1724 – 1804) holds that all morality is founded on reason. Central to Kant's philosophy is the conception of man as a *rational agent*, a being capable of directing his/her own behaviour by reason. For Kant, the fundamental test of the morality of action is whether one could consistently will that the principle of one's action should become a universal law of human nature. Another school of thought in the Enlightenment tradition is represented by Jeremy Bentham (1748 – 1832) who finds the basis of moral distinctions to be in the utility of actions, that is their ability to produce the greatest happiness for the greatest number of persons. John Stuart Mill (1806 – 79) is also a utilitarian in that he believes moral value is determined by the promotion of welfare but unlike Bentham, Mill maintains that people have rights which are independent of calculations of composite happiness – the law does not merely create rights but is expected to respect rights and is unjust when it fails to do so. In his essay *On Liberty*, Mill holds that "... the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others. His own good, either physical or moral, is not a sufficient warrant".

The private and the public domain

The dichotomy between individual freedom and common good may be a source of tension in the area of drug control legislation. Mill's opposition to legal paternalism – coercive legislation that seeks to protect individuals against self-inflicted harm – is often cited by those who favour legalizing currently illicit drugs. This position assumes that individual harm does not constitute collective harm. The principal justification for denying an individual the right to exercise personal freedom by consuming psychoactive substances for non-medical reasons arises from considerations of the possible or actual harm done to others, such as the transmission of disease, antisocial behaviour including violence, and the impoverishment of family resources through lowered productivity. A broader justification might be found in the assumption that the addictive properties of psychoactive drugs are such that individuals who consume them lose the status of beings governed by reason – if they are no longer "the best stewards of their own welfare" their behaviour challenges the personal autonomy on which rational-actor models rely.[3] To paraphrase this in Kant's terms, the illicit drug consumer is not a rational agent. It can thus be argued that prohibition is in the interests of the common good because behaviour which undermines self-regulation and self-control is potentially a threat to liberal society. The arguments for and against legalization are discussed below.

Opposition to legal paternalism assumes that individual harm does not constitute collective harm.

Illicit drug use is sometimes depicted as a symbol of moral decay, a threat to society that may lead to the collapse of nationhood, the abandonment of concern for others and a focus on short-term pleasures for oneself.[4] Those who believe that tolerance of such behaviour erodes the core values upon which society rests feel that a society which fails to punish drug use relinquishes its proper responsibility. Similarly, if insistence on certain standards of behaviour is seen as a kind of moral cement which consolidates society and gives it identity, then enforcement is required to preserve that identity and to prevent harm. Governments which assume responsibility for moral guardianship will clearly view drug control legislation and policy very differently from those which take a more *laissez-faire* approach.

Universalizing legislation

The process of enculturation, or the means by which a prevailing culture helps to shape perceptions of morality, varies widely throughout the world. In countries where – prior to the development of international trading movements and the colonization processes of the 16th and 17th centuries – drug use was an integral part of, and generally confined to, indigenous cultures, creating a new anti-drug culture is especially difficult.

The attempt to introduce universal legislation is beset by problems – it must seek to avoid the extremes, on the one hand, of ethnocentrism – the tendency to evaluate practices found in other social groups by the dogmatic application of one's own society's values – and on the other, of social relativism, namely the attitude that moral value is derived solely from consensus, on the principle that "mores can make anything right".[5] Another delicate task is that of mobilizing consensus to the point where the end product is effective intervention rather than an unsatisfactory and impotent compendium of compromises. Nonetheless, compromise is an integral part of consensus seeking and signifies recognition that not all nations have similar problems, priorities or resources.

For any legislation to be effective, genuine commitment and political will are required: legislative principles which are promulgated on a world-wide basis such as those inherent in international drug control, require an elusive synthesis of cross-culturally approved norms with sufficient moral backing to give them the status of publicly ascertainable primary interests. Paradoxically, when a problem reaches dimensions such that its solution comes to be viewed as a primary interest, it may already have become a serious threat to human welfare and security; proactive intervention is rarely, if ever, a global possibility. Finally, even when the objective of universal legislation has been reached, there can be no ultimate enforcement mechanism – international laws can only be passed and implemented by national governments.

International laws must be implemented by national governments.

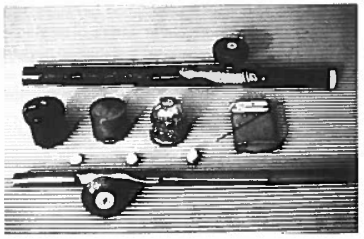
5.2. NATIONAL POLICY

Drug policy variables

In two major respects, drug policy resembles many other domains of public policy – firstly, it represents a compromise, a series of decisions involving priorities, resources, costs and likely returns which must take into account a variety of objective circumstances and subjective approaches. Secondly, it is an area in which international agreements provide guidelines and a core legislative framework whose obligations must be met by parties to them, a minimum baseline of control that can be raised but not lowered. The very existence of such conventions provides the first 'pillar' of drug policy, namely that drug control legislation has an impact extending beyond the boundaries of a single country, which governments must consider when formulating a national control system. The result of this recognition has been greater regional homogeneity, particularly among nations which, for political or economic reasons, have relaxed border and trading regulations.

Whereas national drug laws address an entire population and have a relatively stable foundation which undergoes modification over the years, drug policies are more fluctuating and are an expression of priorities, therefore narrower in focus. They represent a reaction to unresolved ongoing problems and an anticipation of new concerns. Governments are the axis around which all drug policy revolves – they are responsible for its development, for finding the resources with which to finance it, for supervising implementation, for coordinating action from grass-roots level up to bilateral and multilateral cooperation, and for policy evaluation.

Both the formulation of drug policy and its outcome are influenced by a set of variables which include geographical location, political and economic stability, availability of public resources, the perceived magnitude of the drug problem, and the nature of the legal and judicial system in force. Within a limited state budget and a multiplicity of conflicting calls on resources, the priorities allocated by governments to specific objectives are determined largely by the degree of *visibility* of the drug problem, by the *form* it takes (which social group is most affected) and by the *images* it evokes in the public consciousness, i.e., the threat that the community perceives to itself. Historical, criminal and social factors condition such perceptions within each country and thus help to shape drug policy, determining, for example, whether drug abuse is viewed primarily as a public health problem, as a crime-violence-law enforcement issue, as a result of socio-economic factors, or some combination of all these elements.



Old opium pipe.
Photo: UNDCP.

Far from evolving in a vacuum, drug policies make a statement about society's fears and concerns which goes beyond the drug issue. As Musto points out, six restrictions on drug use were introduced in the USA during the early years of the century as a result of perceived linkages between the effects of drug use and antisocial behaviour among immigrant workers, a "... feared or rejected group within society".[6] In contrast, the popularity of cannabis in middle class society later in the century led to a period of quasi-tolerance and a corresponding relaxation of drug policies to the point at which, in 1980, 53% of US citizens favoured legalizing possession of small amounts of cannabis. Only six years later, Musto notes, the proportion had almost halved.

Drug policies are balanced between enforcement and persuasion.

The apparent periodic nature of each drug cycle and the corresponding swings between tolerance and intolerance have led some observers to the conclusion that drug policies do not evolve in linear fashion as the sum of historically accumulated knowledge and experience, but are the product of systematic, subjective distortion by political or cultural influences. Musto believes that "... public memory is a casualty of anti-drug strategies", while Kalant[7] recalls that successfully restrictive policies such as that applied to cocaine in the 1920s, which virtually eliminated non-medical usage, did not prevent its "revival" as a clean, relatively harmless recreational drug in the 1970s, by which time past records of its potentially adverse effects had been forgotten and had to be rediscovered by unhappy experience.

Drug policy objectives

The principles of national drug policy derive from one or more ultimate objectives – in some countries such as Sweden, popular consensus supports the principle of the non-acceptability of illicit drug use, and its relegation to an 'outsider culture', whereas in others, such as the Netherlands and Australia, the elimination of drug abuse is generally believed to be an impossible goal, and instead attention is focused on the minimization of the overall harm deriving from drug abuse, whether the substances be licit or illicit.

Whether aimed at reducing the supply of or the demand for illicit drugs, drug policies are contained in programmes which have specific *objectives* and specific *targets*. The objectives are the goals it is hoped to achieve, such as reducing the rate of drug abuse or the dismantling of trafficking networks. A target group or area may be a vulnerable or high risk sector of the population such as inner-city adolescents or prison inmates. Policies may also select specific drugs or particular problems as targets for special attention.

Drug policies generally aim at striking a balance between enforcement and persuasion or, expressed another way, between sanctions and incentives. Although a division is often made between supply side and demand side policies, a strategy of effective supply reduction will make an impact on demand, and vice versa. Arresting members of a drug distribution network is taken to be a supply side activity although a consequent price rise or decrease in availability directly affects the demand side or the user. The focus of a particular strategy may also vary – within the overall objective of breaking up distribution networks, the emphasis can be at the 'kingpin' level of wholesaler/importer, or else concentrate on the disruption of street markets and low-level dealers. Examples are given in Part 6.

Policy components

Policy-making can be described as a set of stages or steps[8] which include:

(a) Problem identification;
(b) Policy design and development in the short, medium and long term, with appropriate budget implications;
(c) Policy and programme implementation; and
(d) Evaluation and modification or replacement.

According to Kalant[9], the ideal drug policy should include:

(a) Accurate objective information or scientifically based predictions about all the consequences, both beneficial and harmful, of each of the policy alternatives;
(b) Accepted scales of measurement of those effects which can be quantified;
(c) Clearly stated premises, values and objectives of those who make the cost-benefit assessment;
(d) Adequate consideration of the feasibility of the proposed policy, of the mechanism for enforcing it, and of the permissible degree of latitude in its enforcement; and
(e) Provision for the possibility of revoking or altering the proposed policy if experience shows the assessment to have been incorrect.

Problems and paradoxes

The 'wish list' above highlights two basic problems: first, the nature of illicit drug-related activities means that the information required to reach such judgements, and therefore on which policy should ideally be constructed, is either unavailable or is available to such a partial degree that acting upon it 'in real time' – in order to make an impact before the problem changes once more – is extremely difficult. Second, the formulation of drug policy is a particularly finely-balanced and delicate task. There is an implicit potential for almost any drug control initiative to have either beneficial or counterproductive effects, and the precise impact of any policy may vary according to unpredictable variables such as the responsiveness of the targeted group at a given moment. Drug education programmes in schools, for example, have to take into account differing levels of knowledge of, and interest in, drug issues within a particular class, and succeed in giving adequate and accurate information without arousing curiosity.

Uncoordinated policies may lead to a clash between the goals of different agencies involved in combating drug abuse. Law enforcement agencies may aim at reducing supply by disrupting availability and forcing a price rise on the black market. Ideally, increased costs and search time will cause existing drug users to drop out and dissuade potential users from ever entering the illicit market. But severe law enforcement, scarcity and high prices may encourage addicts to switch to a more cost-effective method of administration (for example, from smoking to injection), to substitute a more harmful drug for the preferred drug, or to resort to crime to pay for the price rise. The arrest of a major trafficking ring may in the short term lead to increased violence as rivals compete for market shares. In such cases the achievement of the original law enforcement objective would have been won at the price of increased public health and crime costs. Moreover a successful law enforcement effort may merely displace rather than solve a particular problem – increasing land border surveillance may cause traffickers to shift their distribution networks to maritime routes; targeting cocaine dealers in a specific area may cause consumers to purchase the drug from dealers located elsewhere. Buyers and sellers in an illicit market have greater flexibility than law enforcement agencies.

Problems of policy evaluation

Public policy is policy for which governments are accountable, i.e., they are expected to demonstrate that the overall *costs* of a given policy are outweighed by the *benefits*, using these terms in their broadest sense. Evaluating policy impact, like policy formulation, is hampered by imperfect and indirect knowledge of the field, and by the fact that standards used to evaluate effectiveness vary according to the value systems and beliefs of the persons making the assessment – some costs and benefits simply cannot be measured, "...because these values – images of the desirable – are what determine the

indices on which costs and benefits are measured. Concerns about crime, public health and moral fibre translate into different kinds of costs and different kinds of benefits".[10]

In addition to the uncertainty and subjectivity components there is also a time factor – the impact of a policy may not be felt for several years after implementation and even then, may not necessarily translate into measurable results. Good policies may be judged unsuccessful because implemented too late, or because implementation was hindered by external political, social or economic factors. Governments may fall back on 'non-happenings' as proof of effective intervention – for example, that a threatened crime wave or a feared drug epidemic did not materialize – and although they may indeed be genuine success stories, they are hard to prove. Moreover the life span of an average government – 3 – 5 years – is unlikely to provide an adequate yardstick by which to judge drug policy impact, a factor which in itself may discourage political commitment. The impact of policies will not be uniform since different regions, states or cities will implement them in different ways and will have locally specific problems to deal with. Such variation means that there can be no constant base line of comparison on which to make an evaluation.

Some costs and benefits of a policy simply cannot be measured.

Drug policy outcomes must be studied at least partially in the light of the legal-judicial system operating in each country. The existence of mandatory or discretional prosecution of notified crimes creates a gap between the letter of the law and its implementation, which will be reflected particularly in arrest and sentencing statistics. Discretional application of the law as in the UK and the Netherlands permits a degree of flexibility compared to countries such as Italy where there is an obligation to prosecute every notified crime. Discretional powers may coexist with mandatory prosecution as in Germany, through the principle of 'public opportunity', whereby it may be deemed not in the public interest to prosecute less serious forms of crime.

Discretional exercise of the law is just one of the variables examined by Meier's 1992 study of the relationship between drug policy and outcome in the USA.[11] Meier describes policy as the outcome of "...the interaction of political institutions subject to constraints imposed by social, economic and political environments". His study uses a model based on "environmental variables" such as the visibility of drug markets, escalating drug-related crime and ethnic involvement – which cause policy to "ebb and flow in salience" for the political forces, interest groups and bureaucratic interests that develop and implement it. The study indicates that cannabis laws have more impact on the implementation of policy than do laws dealing with other drugs, but that the severity of these laws is negatively associated with arrest rates – in other words the impact of cannabis laws is "mediated" by law enforcement agencies, which make fewer arrests when the laws are stricter and vice versa. For other drugs, he finds that arrest rates are positively correlated with police resources allocated to drug law enforcement.

Comparative research into prevalence rates and policies in Western Europe and North America suggests that degrees of restrictiveness in drug control laws are not reflected in prevalence rates and that, in general terms, the differences within Western Europe seem to be less a result of differences in laws than of their implementation and related social policies.[12] The only simple relationship to emerge between drug policy and drug problems appears to be that severe problems lead generally to more repressive policies, and that nations tend to leave their drug policy unchanged if the problems seem not to worsen.[13]

A survey of Norway, Canada and the Netherlands showed that, despite marked differences in policy and implementation, trends in illicit drug consumption since the 1970s in all three countries have followed almost identical patterns, which in turn were similar to the trends in the USA.[14] The one exception to the general pattern was rising cannabis use in the Netherlands (compared to falling use in Norway, Canada and the USA) which was attributed to the greater availability and less strong consensus against use in that country. Kalant concludes that policy differences had been overridden by a fundamental disapproval of hard drug use, and that this sentiment predominated over legal status, economic situation or international issues.

Reuband's[15] 12-country study examines Western European drug policies, prevalence and problematic use in terms of cannabis and other drugs considered 'hard'. He points to a recent tendency for some traditionally restrictive countries, such as Germany, to move towards a more liberal policy and a swing in countries generally regarded as liberal, such as the Netherlands, towards more severe controls. No clear-cut relationship between official drug policy and drug prevalence – in particular of cannabis use – emerges from his survey. Regarding use of 'hard' drugs, the study indicates a higher prevalence in the southern Mediterranean countries of Italy and Spain compared to those in the north or centre of Western Europe. The author wonders whether a number of socio-economic factors common to both countries may have contributed to the drug problem, such as fast economic growth after a period of underdevelopment, high youth unemployment, changing patterns of authority and the existence of a socio-cultural revolution in attitudes and values directed against tradition and authority. Reuband concludes that informal social controls and socio-cultural attitudes may be more important than formal controls and drug availability, and that the effects of policy are less evident in prevalence levels than in patterns of use and in physical complications. Thus, he concludes, the question may not simply be, "What effects arise out of which drug policy?" but, "Under what conditions do what effects arise out of which policy?"

Recent policy developments

Over the last decade, two of the most influential factors on drug policies world wide have been pulling in opposite directions – the spread of HIV/AIDS has pushed policy towards a public health/medical emphasis, while cocaine trafficking and the high levels of violence associated with it have pulled policy back towards a law enforcement driven response.

Health and law enforcement objectives sometimes conflict.

Developing countries and those once branded as 'producer' states have experienced a sharp rise in abuse problems which has caused a shift of focus in many regions. Conversely, in countries associated more with consumption, synthetic drug manufacture and trafficking are perceived as urgent policy issues, particularly in view of the possible spread to developing countries.

Alternative development tries to reach those in outlying areas. Photo: UNDCP.

Overall, there is growing consensus that more should be done to understand and reduce the demand for drugs and that new principles of demand reduction be elaborated. The blurring of former distinctions between so-called 'producer' and 'consumer' countries has prompted a policy shift in many countries away from a polarized view of the drug addict as either helpless victim or as wanton criminal, and towards a fusion of criminal law with social and welfare concerns that restores both individual and collective responsibility, whilst increasing the repression of trafficking organizations. Other significant trends have been the increasingly international – regional and sub-regional – component of drug policies, particularly regarding supply-side strategies, and, within the field of law enforcement, the move to integrate financial strategies with organized crime and illicit trafficking countermeasures.

New challenges

A serious challenge to implementing national drug control policies could come from an expansion of the so-called 'grey area phenomenon' – a description applied to scattered but geographically significant areas around the world that partially or totally elude central government control, and where power is in the hands of criminal-political alliances ready to exploit the economic opportunities offered by illicit drug production or trafficking. Such alliances threaten the ability of some countries to develop, let alone implement, drug policies. In these areas drug control will only be effective if it extends beyond the immediate requirements of combating drug abuse and trafficking to address broader issues of political development through promotion of social and economic stability and the stimulation of education and employment opportunities.

Another challenge may come when the long-term impact of the drug abuse explosion of the 1970s and 80s comes to be felt. The accumulating costs of health care for drug-related illness will place an additional burden upon the falling percentage of the working population being called upon to provide pensions and health care for a steadily growing percentage of the retired and non-productive sector. In this case the responsibility – and ability – of governments to continue the public provision of treatment for those who appear to have acted against their own best interests and who then constitute a burden on collective resources may well be called into question. Issues concerning individual and collective rights and responsibilities, the obligations of governments and the debate over individual freedom versus collective good are likely to remain in the forefront of policy debate for many years to come.

The Shanghai Conference, 1909.
Photo: United Nations.

5.3. INTERNATIONAL DRUG POLICY – THE UNITED NATIONS

The many facets of drug control and the variety of other policy areas with which it comes into contact at national level are reflected at international level by the attribution of responsibilities to a correspondingly broad spectrum of agencies, organizations and institutions. Indeed, drug control legislation may be unique in that it originated at international level – from a confluence of world power concerns at a given historical moment – and was subsequently promulgated at national level, rather than the converse (see Part 5, Box).

International cooperation in drug control began in 1909 at a special commission in Shanghai convened by the USA and attended by 13 world powers. At that time the opium trade was coming under increasing criticism, partly due to growing addiction problems in the Far East and in the colonial powers, but also due to changing diplomatic and political allegiances within the broader context of international relations. As a direct consequence of the Shanghai Conference, a convention was signed in The Hague in 1912. The parties to the convention agreed: (a) to limit the manufacture, trade and use of these products to medical use; (b) to cooperate in order to restrict use, and to enforce restriction efficiently; (c) to close opium dens; (d) to penalize possession; and (e) to prohibit selling to unauthorized persons.

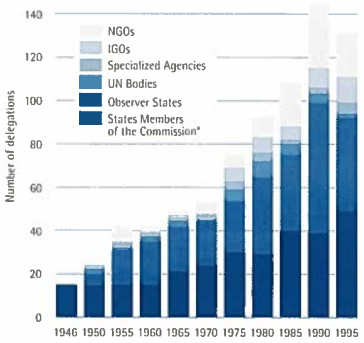
The second International Opium Convention was concluded in 1925 and entered into force in 1928, introduced a statistical control system to be supervised by a Permanent Central Board. The Board also established a system of import certificates and export authorizations for the licit international trade in narcotic drugs. A Convention for Limiting the Manufacture and Regulating the Distribution of Narcotic Drugs, signed in Geneva in 1931, introduced a compulsory estimates system aimed at limiting the world manufacture of drugs to the amounts needed for medical and scientific purposes. It established a Drug Supervisory Body to monitor the operations of the system. The 1936 Convention for the Suppression of the Illicit Traffic in Dangerous Drugs was the first to call for the severe punishment of illicit drug traffickers, but for a variety of reasons this convention was never fully implemented.

In 1946 the United Nations assumed the drug control functions and responsibilities formerly carried out by the League of Nations. The functions of the League's Advisory Committee were transferred to the United Nations Commission on Narcotic Drugs (CND), established in 1946 as a functional commission of the Economic and Social Council (ECOSOC). The CND remains the central policy-making body within the United Nations system for dealing in depth with all questions related to drug control. The main control body, the International Narcotics Control Board (INCB), was established by the Convention on Narcotic Drugs of 1961, which merged the previous bodies – the Permanent Control Board and the Drug Supervisory Body.

CND is the UN central policy-making body for drug control.

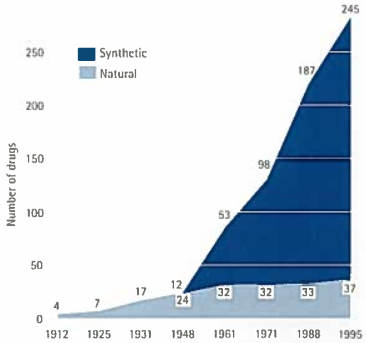
In the pre-war period, drugs subject to international control were largely limited to those derived from the opium poppy, the coca bush and the cannabis plant. After the Second World War, many other compounds had been synthesized which also had dependence-producing effects. This new group of man-made substances outside the scope of the 1931 Convention was brought under international law and control by the 1948 Protocol.

Fig. 5.1: Attendance at Sessions of the Commission on Narcotic Drugs.



* The membership of CND was increased from 15 states in 1946, to 21 in 1961, 24 in 1966, 30 in 1972, 40 in 1983 and 53 in 1991.

Fig. 5.2: Increase in the number of drugs and substances under international control (1912 – 1995).



Source: Bayer I., Ghodse H., The Response: Evolution of International Drug Control 1945 – 1995, Draft paper for UNDCP, 1996.

The 1953 Opium Protocol (which entered into force in 1963) was introduced to eliminate legal overproduction by controlling the amount of opium that could be stocked by individual states. Only seven countries – Bulgaria, Greece, India, Iran, Turkey, the former Soviet Union and Yugoslavia – were authorized to produce opium for export.

The complexity and number of the legal agreements on narcotic drugs (which with the 1953 Protocol had reached nine) created the need for unification and simplification. Efforts in this direction, culminating in the three current drug control Conventions, represent a continuing quest to reconcile the differing medical, scientific, political, social and economic interests of an increasing number of participating countries as the number of substances continues to proliferate. Figs 5.1 and 5.2 show this widening scope.

International drug control: historical aspects and future challenges

David F. Musto, M.D.

The international effort to control production, manufacture and distribution of opium, morphine, heroin, cocaine, and other substances known to be dangerous is less than a century old. The movement arose from circumstances in Eastern Asia, especially from the opium problem in China, and the geopolitical interests there of Western powers. Opium production has existed for millennia in the present nations of Turkey, Iran and Afghanistan, with later growth farther east extending into China and north into the regions around the Black Sea. The demand for opium, especially in smokeable form, had been growing in East Asia since the 17th century. Transporting opium from the growing regions to its consumers was a profitable trade in the 19th century. Sale of Indian opium to China became an integral part of payment for the British government of India. As a consequence of war and mid-19th century treaties, opium entered China from India regardless of the Chinese government's opinion of the trade. In addition to the importation of opium, the crop was increasingly grown in China itself.

In China the opium trade caused controversy because the use of opium was often blamed for the nation's weakness in the face of Western aggression. Meanwhile, in Britain, anti-opium groups also declared that the trade was wrong and should be stopped. Not until 1906, however, did a British government come to power that shared this condemnation of the forced trade of Indian opium to China. This political change occurred the same year that the Chinese government set in motion a campaign against smoking opium and opium production in China. These two events converged with a third when the USA decided to invite relevant nations to meet in Shanghai to discuss the ways in which China's anti-opium campaign could be supported. The USA had additional motives, including a hope that international agreement on the distribution of opium and its derivatives would solve the opium smuggling problem in the Philippines.

The coincidence of these three governmental decisions made possible the start of the international anti-drug campaign in which we are still involved. If the USA had not become involved, the contentious issue between India and China might well have still been resolved to their satisfaction, but it is unlikely that the international community would have been enlisted in an international effort to control opium.

In February of 1909 the International Opium Commission met in Shanghai, but did not have authority to conclude a treaty. The Commission's findings set the stage for the Opium Conference at the Hague in December, 1911 that drafted the Hague Opium Convention of 1912, the first treaty to attempt the control of opium (and cocaine) through world-wide agreement.

Consider the accidental combination of events that allowed this international anti-drug movement to begin. The Liberal party's victory in Britain and the USA's acquisition of the Philippines in 1898 resulted from factors far removed from development of world opium regulation and yet without the two former events, it is unlikely that the latter would have occurred. Also enabling the movement was

the absence of any active conflict among the great powers, another situation unrelated to drug control but necessary for any meaningful cooperation. Without these essential conditions, the task of creating the Hague Convention would probably have been unsurmountable. Control of drugs, we have come to realize, is not of such supreme international importance that it can override great power conflicts; those who strive toward this objective must be responsive to favourable international circumstances.

The League of Nations assumed responsibility for the Hague Treaty in 1920. Ratification of the Treaty had been widely extended by including it in the Treaty of Peace which ended World War One. A drawback to the League's leadership was that the USA did not join the international organization and, as a result, a nation which had energetically sought international agreements was removed from the central position it had held. Further estrangement occurred when the American delegation, frustrated in its efforts to ban the manufacture of heroin and prohibit opium smoking, walked out of the deliberations of the Geneva Convention in 1925. The USA did not again assume an active role in international negotiations until the 1930s.

The American departure was not the only change in the original circumstances of the Shanghai and Hague meetings. In 1912 China entered a prolonged period of internal conflict that would not be resolved until 1949. Russia underwent revolution in 1917, and slowly resumed a place in traditional international affairs before joining the League of Nations in 1934. By the mid-1930s the European powers were becoming sharply divided over German territorial claims, Japan had invaded China, and the World War that erupted in 1939 lasted for six years. Clearly, the unified nations that met and proposed agreements in the few years before the First World War were no longer able to make similar comprehensive commitments until the end of the Second World War.

The post-war conditions, however, were not a simple reversion to what had existed in the earlier era of 1906 – 1914. The Cold War, with its clear demarcation between two great power blocs, caused subsidiary issues such as drug control to become grist in the mill of accusation and counter-accusation; opium growers, largely located at the boundary of the two large spheres of influence, were able to profit from international enmity, playing off one group against another. Not until 1989 and the demise of the Cold War were conditions again as favourable to international agreement as they had been three-quarters of a century earlier.

Nevertheless, recent decades have seen progress in international cooperation despite tensions between East and West. Several treaties have advanced the effort to control the traffic in drugs and to promote the treatment of those dependent upon them. Three international actions stand out as milestones in the post-World War Two era: the 1961 Single Convention on Narcotic Drugs; the 1971 Convention on Psychotropic Substances; and the 1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances.

Given these advances in international cooperation during a difficult period of tension and mutual distrust, what can we expect now that the Cold War has ended? Will anti-drug efforts flourish and obstacles melt away? Unfortunately, the blocks to comity on the drug issue that East-West confrontation caused do not, in their absence, solve some serious questions that continue to present themselves to policy-makers.

Foremost among continuing issues is national sovereignty. Because the traffic in drugs is notoriously international, the limits of sovereignty are repeatedly tested by calls for cooperation in the sharing of information and law enforcement activities. The resolution of these real and potential conflicts must rest with each government balancing sovereignty against the danger to institutional integrity posed by drug cartels. It is one of the most persistent concerns when formulating international initiatives, yet the foundation of the United Nations rests on the independence of its Member States.

Relaxation of Cold War tensions has brought some new problems. Eastern European nations which did not have currencies that were convertible with 'hard' currencies now enjoy that economic benefit.

A corollary development, however, is that drug dealing in these nations can now be much more profitable. Furthermore, the strict control over the borders that divided West from East have been relaxed so that smuggling is easier. Additionally, parts of the former USSR which are now independent, such as the Central Asian states, have the potential for opium production combined with a need for income that will bear close observation by the international community. When we review these conditions, can we be optimistic in any way about the post-Cold War circumstances?

In fact, the end of the Cold War created a condition so unprecedented in our lives that we risk overlooking its significance. As sketched above, the period from 1912 – the beginning of the Chinese revolution – to 1989 was marked by a series of wars, revolutions and factional disputes that made practical control of illicit production and trafficking virtually impossible. Treaties might be adopted, but local control essential to curbing drug entrepreneurs, in key areas of the world, was lacking. Of course, with the end of the Cold War these conditions have not suddenly converted to what the treaties require, nor should such a change be expected. The end of the Cold War is unconnected to drug control; it is the political reality within which anti-drug proposals and activities take place. The burden of action rests with those who wish to reduce drug dependence.

The new atmosphere allows nations to be frank about their drug problems. Less and less do nations feel the need to hide or deny drug use and production. Increasingly accurate public speech is replacing the biased accusations and official denials of the Cold War. Surely, the first step to action is open recognition of the problem unclouded by ideological defence and offence, even if what we can observe of the world drug problem may be discouraging.

A second characteristic of the present openness is the ability of the United Nations to create cooperation across borders previously closed. A singular example of this is the Sub-regional Drug Control Programme in South-East Asia which involves the nations surrounding the 'Golden Triangle' of opium production (see Part 5.5). Still, the success of such enterprises depends on the willingness of the nations involved to take advantage of conditions which foster concerted action.

Finally, for now at least, the aroused determination of the international community to curb drug problems will not face a task that is inherently impossible to attain. Whether nations will seize this opportunity – or even perceive it – cannot be predicted. International drug policy floats on the waves of international relations: smoothed seas don't create effective drug policy, but they do make effective policies a reasonable objective.

UN DRUG CONTROL CONVENTIONS

The operation of the international drug control system is based on the principles of national control by States as well as international cooperation between States, and with the UN bodies in compliance with the provisions of three legally binding international treaties. States not party to a particular treaty are encouraged to apply treaty provisions voluntarily. The major international drug control treaties currently in force are the **1961 Single Convention on Narcotic Drugs** (strengthened by the 1972 Protocol amending that Convention), the 1971 **Convention on Psychotropic Substances**, and the **United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances** which was adopted in 1988. The **World Health Organization (WHO)**, through its Expert Committee on Drug Dependence, is designated by the 1961 and 1971 Conventions to make recommendations, according to established criteria, as to whether a new substance should be brought under international control and to what degree of control it should be subjected. Similar responsibilities have been given to INCB with respect to chemicals to be considered for inclusion in the scope of the 1988 Convention. The CND considers the economical, social, legal and administrative factors and then decides whether or not to include the substance in one of the schedules of the appropriate convention.

The 1961 Single Convention on Narcotic Drugs (158 parties*)

The UN Member States had three principal objectives in drafting the 1961 Convention – the merging of all existing multilateral treaties in the field, the streamlining of control machinery (the functions of two existing bodies, the Drug Supervisory Body and the Permanent Central Board, were merged into the International Narcotics Control Board), and extension of the existing control system to include cultivation of plants grown as the raw material of narcotic drugs. The overall aims of control measures remained, namely the provision of adequate supplies of narcotic drugs for medical and scientific purposes and of measures to prevent diversion into the illicit market.

The 1961 Convention exercises control over more than 116 narcotic drugs. They include mainly plant-based products such as opium and its derivatives, morphine, codeine and heroin, but also synthetic narcotics such as methadone and pethidine, as well as cannabis, coca and cocaine. The Convention divides drugs into four groups or schedules in order to enforce a greater or lesser degree of control for the various substances and compounds. Opium smoking and eating, coca leaf chewing, cannabis-resin smoking and the non-medical use of cannabis are prohibited.

The 1972 Protocol to the Convention calls for increased efforts to prevent illicit production of, traffic in, and use of narcotics. It also highlights the need to provide treatment and rehabilitation services to drug abusers, stressing that treatment, education, after-care, rehabilitation and social reintegration may be considered instead of, or in addition to imprisonment in cases involving individuals who have committed a drug offence.

The 1971 Convention on Psychotropic Substances (146 parties*)

Growing concern over the harmful effects of psychotropic substances such as amphetamine-type drugs, sedative-hypnotic agents and hallucinogens led to the 1971 Convention on Psychotropic Substances. This extended the international drug control system to include hallucinogens such as LSD (lysergic acid diethylamide) and mescaline; stimulants such as amphetamines and sedative-hypnotics such as barbiturates. The Convention categorizes the substances into four schedules according to the dependence-creating properties and abuse potential on the one hand and their varying therapeutic values on the other. Special provisions concerning abuse prevention are aimed at ensuring early identification, treatment, education, aftercare, rehabilitation and social reintegration of dependent persons.

United Nations International Drug Control Programme Headquarters, Vienna. Photo: UNDCP.

* Status as at 31 October 1996

United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances 1988 (137 parties*)

The 1988 Convention complements the other drug control treaties, both of which were primarily directed at the control of licit activities. It was formulated specifically to deal with the growing problem of international trafficking which had only been dealt with marginally by earlier international legal instruments. The Convention includes money laundering and illicit traffic in precursor and essential chemicals within the ambit of drug trafficking activities and calls on parties to introduce these as criminal offences in their national legislation. Its objective is to create and consolidate international cooperation between law enforcement bodies such as customs, police and judicial authorities and to provide them with the legal guidelines: (a) to interdict illicit trafficking effectively; (b) to arrest and try drug traffickers; and (c) to deprive them of their ill-gotten gains. It also intensifies efforts against the illicit production and manufacture of narcotic and psychotropic drugs by calling for strict monitoring of the chemicals often used in illicit production. INCB is required to supervise implementation of control measures on precursor chemicals. The Convention provides for strengthened mechanisms to ensure the extradition of major drug traffickers, mutual legal assistance between States on drug-related investigations and prosecutions and the transfer of criminal proceedings. It also introduces provisions for tracing, freezing and confiscating proceeds and property derived from drug trafficking as well as financial and commercial records.

UNDCP has exclusive responsibility for coordinating and providing leadership for all UN drug control activities.

The Convention requires law enforcement agencies to establish and maintain channels of information exchange concerning the identity and whereabouts of suspected traffickers, and recommends measures aimed at suppressing illicit trafficking by air, land and sea, together with the use of specialized techniques such as controlled deliveries (see Part 6.5).

United Nations International Drug Control Programme

The United Nations International Drug Control Programme (UNDCP) was created by General Assembly resolution 45/179 of 21 December 1990, which integrated into a single programme the structures and functions of the three former UN drug control units, namely the Division of Narcotic Drugs, the United Nations Fund for Drug Abuse Control and the International Narcotics Control Board Secretariat. UNDCP, which is based in Vienna, was entrusted with the exclusive responsibility for coordinating and providing effective leadership for all United Nations drug control activities. (See Fig. 5.3., the organizational chart for drug control).

UNDCP is funded from the regular budget (assessed contributions) of the United Nations as well as from extrabudgetary resources under the Fund of UNDCP (see Fig. 5.4). The regular budget of UNDCP, which represents approximately 10% of UNDCP's resources, essentially covers normative activities in the areas of treaty implementation and legal affairs as well as some advisory services. The regular budget is approved by the General Assembly of the United Nations on a biennial basis. The Fund budget, representing approximately 90% of the resources, is financed from voluntary contributions given by governments and other sources such as NGOs, and is geared towards assisting developing countries in meeting their obligations in implementing provisions of the international drug control treaties. Such assistance is provided through UNDCP headquarters, its field office network and by projects

* The largest contributors include: Italy, UK, USA, Sweden, Japan, Germany, the European Commission, France, Denmark, Norway, Switzerland, Australia, Canada, Spain, Austria, Netherlands and Belgium. These countries alone provided 96% of the total voluntary funding of UNDCP in 1995.

THE THREE UN CONVENTIONS

Single Convention on Narcotic Drugs, 1961

This Convention is an international treaty whose purpose is to prevent and combat drug addiction by means of coordinated and international action. It states that "the possession, use, trade in, distribution, import, export, manufacture and the production of drugs is exclusively limited to medical and scientific purposes".

Essentially, the text provides for two complementary forms of intervention and control: the first, which is of a preventive nature concerns the licit, scientific and medical market; the second, of a repressive nature, concerns illicit traffic, drug abuse and drug addiction. Prevention is essentially aimed at avoiding diversion from medical or scientific channels into illicit traffic and at preserving licit supply. Repression consists in establishing international penal cooperation so as to punish and discourage drug traffickers.

This Convention was amended by the *1972 Protocol* highlighting the need to provide treatment and rehabilitation to drug abusers, stressing that this should be considered as alternative or in addition to imprisonment.

Convention on Psychotropic Substances, 1971

Closely resembling the 1961 Convention, this Convention establishes an international control system for psychotropic substances, which are generally produced by the pharmaceutical industry. This was a response to the diversification and expansion of the spectrum of drugs of abuse, and introduces controls over a number of synthetic drugs (hallucinogens, stimulants, hypnotics, sedatives and anxiolytics).

The Convention categorizes psychotropic substances into four schedules according to their dependence-creating properties and abuse potential on the one hand, and their varying therapeutic value on the other.

The immediate purpose of these two treaties is to codify internationally applicable control measures in order to ensure the availability of narcotic drugs and psychotropic substances for medical and scientific purposes, and to prevent their diversion from licit sources into illicit channels. They also include provisions of a general nature on the illicit traffic in and abuse of drugs.

Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988

This Convention reflects the response of the international community to increasing illicit cultivation, production, manufacture and trafficking activities. The Convention provides for comprehensive and innovating measures against drug trafficking, such as provisions against money-laundering and against illicit activities related to precursor and essential chemicals and provisions for new methods of international cooperation such as transfer of proceedings, controlled deliveries and extradition of drug traffickers.

The three major international drug control treaties are mutually supportive, and complementary. Each of them builds upon and reinforces the provisions of the others.

MEMBER STATES OF THE UNITED NATIONS

UN General Assembly

Principal body through which the United Nations adopts resolutions, conventions and protocols, approve funds, it serves as the forum through which individual governments express their views.

ECOSOC

(54 member states) The Economic and Social Council is responsible for formulating overall UN policies in the field of drug abuse control, coordinating drug control activities with the full range of economic and social programmes of the UN and making relevant recommendations to Governments.

INCB

(13 member experts serving in their personal capacity) The International Narcotics Control Board is the independent and quasijudicial control organ for the implementation and monitoring of the UN Drug Conventions. Its responsibility is to promote government compliance with the provisions of the treaties and to assist them in this effort. The INCB endeavours to ensure that adequate supplies of drugs are available for medical and scientific uses, and that leakages from licit activity do not occur. It identifies where weaknesses in the national and international control system exist and contributes to correct the situation. The INCB publishes an annual report submitted to ECOSOC through the Commission.

CND

(53 member states) The Commission on Narcotic Drugs, one of ECOSOC's six functional commissions, assists the Council in supervising the application of international conventions and agreements dealing with narcotic drugs and psychotropic substances. It considers any changes that may be required in the existing machinery, and may prepare new conventions and international instruments. It is the central policy-making body within the UN for all questions related to drug abuse control.

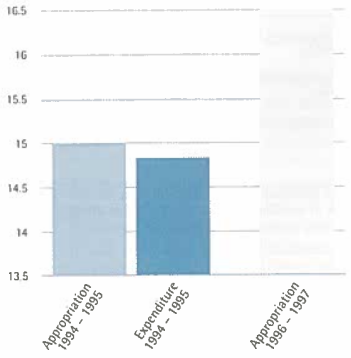
UNDCP

The United Nations Drug Control Programme was established in 1991 as a single programme, integrating fully therein the structures and functions of the three former UN drugs units, i.e. the Division of Narcotic Drugs (DND), the UN Fund for Drug Abuse Control (UNFDAC) and the INCB Secretariat, with the exclusive responsibility for co-ordinating and providing effective leadership for all UN drug control activities. The UNDCP advises and assists Governments and specialized agencies on the implementation of the international drug control treaty system. The main objectives of the programme are: (1) to coordinate and provide effective leadership for all UN drug control initiatives; (2) to anticipate the development of phenomena which could create or aggravate illicit drug production, trafficking and abuse and to mobilize and support remedial measures in a timely fashion; (3) to be a world-wide centre of expertise and repository of information by collecting, analyzing and disseminating data, information and experience in all fields of drug control; (4) to assist CND and INCB in implementing their treaty-based functions and in promoting new instruments as needed; (5) to provide technical assistance through expertise and training to help governments in setting up adequate drug control structures and to elaborate comprehensive national and regional drug control strategies and programmes; (6) to provide technical cooperation in the different fields of drug control with a view to elaborating methodologies and approaches to be shared; and (7) to assist governments in the development of subregional initiatives and plans of action with the basic concept of joint operations between concerned countries.

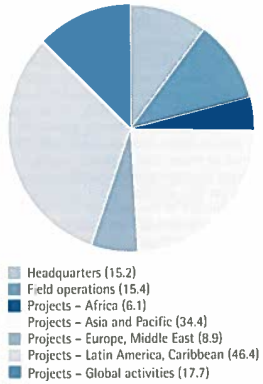
▽ : Direct connection (administrative or constitutional) ▼ : Reporting, cooperative and advisory relationship

Fig. 5.3: International Drug Control (organization chart).

Regular budget of UNDCP. (in US$ million)



Expediture against fund budget 1994 – 1995. (in US$ million)



Fund budget 1996 – 1997. (in US$ million)

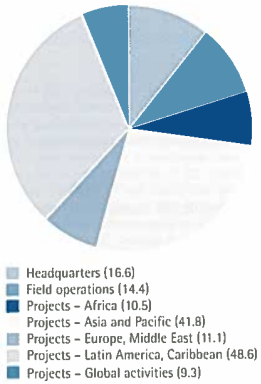


Fig. 5.4: UNDCP budget.

carried out for the most part by executing agencies other than UNDCP itself. The Fund budget is approved by the Commission on Narcotic Drugs.

International strategies

In December 1985 the United Nations General Assembly took the decision to convene an international conference on drug abuse and illicit trafficking. The conference met in Vienna in 1987 and adopted a **Comprehensive Multidisciplinary Outline (CMO)** in which the UN's international drug strategy framework was elaborated. This was to serve as a basis on which national authorities could formulate balanced national, regional, and international strategies to combat all aspects of the illicit drug phenomenon. It comprises a set of recommendations addressed to governments, divided into four chapters: (a) prevention and reduction of illicit demand; (b) control of supply; (c) action against illicit traffic; and (d) treatment and rehabilitation. Each chapter lists specific goals to be reached under the main objective, and the action to be taken – at national level (by governments, professional organizations, university institutions, non-governmental organizations, local authorities, parents and individuals); at regional level (by intergovernmental and non-governmental regional organizations and agencies); at international level (by international organizations, specially the UN and its associated bodies).

In 1990 the General Assembly adopted a **Political Declaration and a Global Programme of Action**, which called on the United Nations system to give a higher priority to the allocation of the necessary financial, personnel and other resources to international cooperation in drug control. It also called on Member States to give high priority to demand reduction measures and to strengthening the UN's role as an information centre. This approach was felt to be necessary because many States were not able to address drug-related problems individually given the inadequacy of their control and monitoring mechanisms. The Assembly also proclaimed the period from 1991 to 2000 the United Nations Decade against Drug Abuse, to be devoted to sustained and effective national, regional and international action for implementating the Global Programme of Action.

To help requesting States become party to and implement the UN drug control Conventions, the Legal Assistance Group of UNDCP provides the following – review and evaluation of drug abuse control legislation and infrastructures; advice on legislative or administrative matters to implement the conventions or enhance their effectiveness; provision of expert consultants to help prepare any necessary legislative drafting instruction or to draft the legislation itself; training of judges, prosecutors, investigators and officials in implementing the new laws.

Other UN agencies involved in international drug control efforts

Other than UNDCP, the UN agencies with a major involvement in drug control are as follows:

World Health Organization (WHO) – aims to reduce the abuse of all psychoactive substances, i.e., alcohol, tobacco and volatile inhalants as well as narcotic drugs, and psychotropic substances, within the context of promoting universal health; it is the only agency which is given a specific role by the international drug control treaties;

International Labour Office (ILO) – deals with prevention and drug-related problems in the workplace as well as vocational rehabilitation and social reintegration programmes;

United Nations Crime Prevention and Criminal Justice Division (CPCJD) – deals with the linkages between crime and illicit drugs, including areas such as money laundering and judicial system reform.

Other agencies whose mandates have a drug control perspective include:

Food and Agriculture Organization of the United Nations (FAO) – assists in projects aimed at raising income levels of farmers and reducing incentives to cultivate illicit crops, and in the potential use of remote sensing techniques and satellite imagery in detecting illicit crops;

United Nations Industrial Development Organization (UNIDO) – assists governments and the private sector to establish and manage agro-industries in illicit crop areas;

United Nations Educational, Scientific and Cultural Organization (UNESCO) – integrates preventive education concerning drug use into school curricula as well as in out-of-school educational activities;

United Nations Children's Fund (UNICEF) – incorporates drug abuse prevention work in its activities, targeting especially vulnerable groups of children and young people;

United Nations Joint Programme on AIDS (UNAIDS) – addresses the linkages between intravenous drug injection and the spread of the HIV virus;

UNDCP acts as facilitator of international cooperation.

United Nations Development Programme (UNDP) – promotes the inclusion of appropriate drug control elements in its development activities;

United Nations Population Fund (UNFPA) – integrates drug abuse prevention messages in its education programmes; and the

UNDCP laboratory training.
Photo: UNDCP.

United Nations Interregional Crime and Justice Research Centre (UNICRI) – undertakes research on the relationship between criminal behaviour and drug abuse.

All these agencies, and any others that are interested, are members of the **ACC Subcommittee on Drug Control**, which meets annually to deal with the coordination of drug control work in the UN system. This interagency subcommittee is responsible for compiling a **System-Wide Action Plan**, which is being built up around the activities and plans of all the participating agencies on the basis of sectoral and sub-sectoral themes which reflect regional and national concerns and activities. These comprise areas such as drug abuse prevention in the school environment, prevention measures among children and youth in especially difficult circumstances (e.g., street children), prevention strategies for the workplace and the gender dimension in drug abuse. Ideally, the work of the international agencies is a multilateral reflection of what is done at the national level. The overall goal is to construct a united and coordinated front which, together with international financial institutions, will eventually incorporate other international organizations outside the system and the private sector, including the multinational, to tackle all forms of drug abuse at global level. (See 'Framework for Action' below).

5.4. THE INSTRUMENTS OF INTERNATIONAL COOPERATION

One of the primary functions of the United Nations International Drug Control Programme is to act as catalyst and facilitator of international cooperation in the area of drug control. Cooperation ranges from simple bilateral agreements on a specific problem to multi-faceted, sub-regional and regional cooperation arrangements. These may be incorporated into existing cooperation agreements or created as the need arises. UNDCP may simply promote the direct collaboration of two or more parties or may join as an active partner. This latter approach facilitates collaboration in the drug field between countries for whom other forms of political rapprochement may

FRAMEWORK FOR ACTION

The Global Programme of Action

Adopted in 1990 by the General Assembly at its seventeenth special session, devoted to the question of international cooperation against illicit production, supply, demand, trafficking and distribution of narcotics drugs and psychotropic substances, the Global Programme of Action reflects the will of the international community to consider as an urgent matter the improvement of international cooperation in order to render effective and efficient the fight against illicit drugs and drug abuse.

In the spectrum of international action plans, The Global Programme of Action represents the most comprehensive statement of the action that needs to be taken by individual countries and collectively through the system of international organizations. It provides a framework and guidelines to the international community.

The Global Programme of Action offers a wide range of guidance to Governments facing drug-related problems, and recommends concrete measures to address issues such as illicit cultivation and processing, trafficking, money laundering and illicit demand.

Essential for the successful application of the many recommendations contained in the Global Programme of Action is a coherent and comprehensive national policy combined with well-defined strategies for implementation. In order to assist Government in this connection, UNDCP offers guidance in the preparation of national drug control plans which it refers to as 'Master Plans'.

Master Plans

The Master Plan is a single document in which a government identifies what it intends to do in the field of drug abuse control. The approval of a Master Plan presupposes a serious political commitment to take action. It summarizes national policies, defines priorities and assigns responsibilities. The preparation of a Master Plan is itself an exercise in policy formulation and coordination.

The general purpose of a Master Plan is to bring coherence to the control of illicit supply, trafficking and drug abuse, to deal with matters such as illicit cultivation, smuggling, diversion, treatment, rehabilitation and education to prevent abuse. The Master Plan provides an opportunity to focus on the institutions that plan, manage and implement drug abuse control and to identify ways in which they may be strengthened and better coordinated.

The Master Plan combines political intent with a practical set of envisaged actions. Furthermore, it can serve as a framework for the coordination needed to ensure that all parts of a government work towards the same objectives. In addition, the Master Plan can provide the instrument which integrates the activities of nongovernmental organizations and the private sector into overall national strategy.

At the international level, a well-designed Master Plan can facilitate cooperation between states by identifying areas of common interest. The Master Plan also helps focus attention on high priority areas for international assistance. Countries seeking international assistance can state which of their strategies and activities have the greatest priority, while countries able to provide assistance can identify the sectors in which they can most effectively cooperate.

be difficult or impossible. These instruments are described below in terms of drug control, though they have much broader applications.

A **Memorandum of Understanding (MoU)** is an agreement which may be intergovernmental, may exist between governments and agencies such as customs or police, or between governments and/or agencies and commercial organizations such as airlines or freight haulage carriers. It can cover a wide range of activities or a specific commitment to collaborate in a certain field. An MoU derives from the existence of convergent interests between two countries with similar problems and the political will to deal with them. It is not a legally binding instrument and in many cases does not have to be ratified by national parliaments, but may require the introduction of special legislation to permit it to function. Ideally this form of cooperation deepens and broadens in scope and draws other partners into the network of collaboration. Myanmar signed an MoU on drug control cooperation with India in 1993 and with Bangladesh in 1994. Both agreements provided for the exchange of information and frequent communications through drug law enforcement focal points. UNDCP has brokered several other MoUs on subregional drug control cooperation in other parts of the world.

Perceived loss of national sovereignty is the main obstacle to international initiatives.

In contrast to the MoU, **treaties** and **conventions** are legally binding judicial instruments which, once ratified, supersede national legislation and therefore must usually be subjected to parliamentary approval. While the optimum form of international cooperation is multilateral, in that it unites more consensus around a particular problem, such agreements are naturally fewer in number than the simpler form of MoU. The main obstacle to multilateral initiatives – especially in the sensitive areas of justice and law enforcement – is anxiety over perceived loss of national sovereignty. This can be overcome if nations recognize that unity of purpose may enhance, rather than reduce, efficiency and control.

Mutual legal assistance treaties are designed to facilitate the collection of evidence from foreign jurisdictions in a form which is admissible in the court of another country. They are an attempt to remove obstacles to international evidence gathering and contribute to a gradual harmonization of criminal procedures.

One of the most successful examples is the treaty signed in 1977 between the USA and Switzerland, which provided invaluable information relating to drug trafficking and money laundering. Switzerland provided evidence admissible in US courts and agreed to make the provision of assistance obligatory in organized crime cases.

Another example is the bilateral cooperation between the USA and Italy, which contributed to the disruption of the narcotics network established by the US and Sicilian Mafias – the 'Pizza Connection' – on which law enforcement officers in Brazil, Canada, Germany, Italy, Spain, Switzerland and the USA collaborated for nearly a year, culminating in the arrests of more than a hundred individuals. Two 'turncoat' Sicilian Mafia members cooperated with both the USA and Italian authorities and provided testimony in trials in both countries. The commitment to collaboration on both sides enabled differences in rules of evidence, immunity agreements, pre-trial disclosures and cross-examination to be overcome.

5.5. REGIONAL AND SUB-REGIONAL COOPERATION

Regional and sub-regional cooperation is based on the recognition that certain problems of drug control can best be addressed by countries whose common borders, specific geographical location, lack of resources or particular vulnerabilities, call for a specific response which may not fall within the more general scope of a multilateral convention.

While the suppression of illicit trafficking is by definition a cross-national problem, prevention and treatment responses must be specific, not only to a country, but often to different areas within it. Nonetheless, model programmes for prevention, education and treatment can be developed with a

built-in flexibility to take account of the specific requirements of the target group. Both supply and demand reduction programmes at regional or sub-regional level require fine-tuning to make allowances for local infrastructures, legal, cultural and political variations and available expertise.

The comparable nature of the drug problems facing several Eastern European countries – Poland, the Czech Republic, Slovenia, Hungary and the Slovak Republic – has prompted cooperation in harmonizing legal and institutional frameworks, joint enforcement operations, licit control measures and demand reduction efforts. Together with UNDCP, these countries signed an MoU in 1995 on closer drug control cooperation. In May 1996 the governments of the Central Asian Republics of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan signed an MoU on drug control cooperation in the sub-region with UNDCP. This endorsed a Sub-regional Drug Control Cooperation Programme for Central Asia (1996 – 1999), which provides strategic and priority outlines for collaborative efforts by all Central Asian Republics in addressing illicit traffic and drug abuse.

The MoU on Sub-regional Drug Control Cooperation linking Argentina, Bolivia, Chile, Peru, Uruguay and UNDCP, laid the groundwork for current cross-border cooperation projects in intelligence gathering, precursor control, money laundering and interdiction. The MoU enables countries to pool scarce resources and upgrade training standards. A similar MoU was signed in May 1996 by Mexico, the Central American republics, and UNDCP. Also in May 1996, UNDCP convened the Regional Meeting on Drug Control Cooperation and Coordination in the Caribbean, when 29 countries and territories of the region, 10 donor countries, and all relevant inter-governmental, non-governmental and regional organizations adopted the Barbados Plan of Action containing 87 recommendations to improve the effectiveness of national drug control councils, drug control legislation, law enforcement, maritime cooperation, and demand reduction.

In many regions of the world, multilateral cooperation in drug control comprises three components – UNDCP, a regional or sub-regional economic development organization, and some or all the Member States of the same organization.

In September 1994 UNDCP and the **Organization of African Unity (OAU)** signed an MoU to increase cooperation between the two organizations through exchange of information, provision to OAU of drug control reference materials, joint participation in drug control events, sharing of expertise, and a range of specific projects. Other focused cooperation projects have been developed with the **Economic Community of Central African States (ECCAS)**, with the **Economic Community of West African States (ECOWAS)** and with **SADC**, the **Southern African Development Community**, which organized a conference on cross-border trafficking in autumn 1995. Approval was given to add a draft protocol addressing the drug issue to the SADC Treaty.

The governments of China, Myanmar and Thailand have been collaborating in various drug control efforts since their endorsement of a sub-regional strategy, initiated by UNDCP, in 1992 through signing two joint drug control project agreements. Under the Myanmar/Thailand and Myanmar/China sub-regional agreements, six projects covering the supply reduction, demand reduction and law enforcement areas in respective border areas, were launched with UNDCP assistance (and all were on-going in 1996). To further strengthen collaborative efforts, China, Lao PDR, Myanmar, Thailand and UNDCP signed an MoU in 1993. Cambodia and Vietnam became parties to the 1993 MoU at the first ministerial meeting of the six MoU governments in 1995 which adopted a three-year Sub-regional Action Plan in drug control.

Iran, Pakistan and UNDCP signed an MoU in 1994 with an option for Afghanistan to join at a later date. This aimed to strengthen the surveillance capacities of law enforcement agencies in the border areas of the two countries. UNDCP also became a signatory to an MoU with the **Economic Cooperation Organization** (comprising Iran, Afghanistan, Pakistan, Turkey, Azerbijan, Tajikistan, Kyrgyzstan, Uzbekistan, Turkmenistan and Kazakhstan).

The **South Asian Association for Regional Cooperation (SAARC)** is also active in drug control, both in law enforcement and in demand reduction activities through the **SAARC** Convention on Narcotic Drugs and Psychotropic Substances, which entered

into force in 1993. **SAARC** and **UNDCP** became signatory to an MoU in 1995.

The **Colombo Plan** for cooperative economic and social development of the Pacific, together with **ASEAN** (Association of South-East Asian Nations) and the **South Pacific Forum** are also involved in initiatives to combat drug trafficking and abuse.

Regional UN Commissions also play an active role – a meeting of senior officials on drug abuse issues in Asia and the Pacific, hosted by the **Economic and Social Commission for Asia and the Pacific (ESCAP)** and held in Tokyo in February 1991, led to a Declaration on Enhanced Regional Cooperation for Drug Abuse Control in Asia and the Pacific. This Declaration *inter alia* called for coordinated and comprehensive supply and demand control measures, encouraged development of regional and sub-regional programmes and welcomed a proposal to form a coordinating centre within the framework of UNDCP.

The 34-member **Inter-American Drug Abuse Commission (CICAD)** of the **Organization of American States** was established in 1988. It meets twice yearly and is attended by the most senior drug control authorities of Member States. Its purpose is to facilitate multinational collaboration against the illicit drug trade. Its achievements, supported by or with the collaboration of individual governments or UN agencies include:

(a) Exchange of data about the magnitude of the drug trade in the region and the facilitation of access to documents to help Member States to understand and deal with the phenomenon;
(b) The establishment of a drug surveillance monitoring system which collects and analyses data from selected emergency rooms and detention centres in Central America;
(c) The development of preventive education programmes for school children and in the workplace;
(d) The mobilization of support within the private sector including the media, business groups, and community organizations;
(e) The exchange of information and experiences among national law enforcement agencies and the development of more effective mechanisms for these agencies to work together transnationally;
(f) Initiatives to regulate the flow of precursor and essential chemicals throughout the region; and,
(g) The adoption of model legislation on money laundering.

Together with UNDCP, CICAD is helping seven republics in Central America to update and harmonize their drug control legislation. Both organizations periodically exchange information on their programmes in Latin America and the Caribbean, and plan to co-sponsor information coordination mechanisms in the region. UNDCP and CICAD, together with WHO and ILO (see 5.3.), have convened regional Expert Forums on Demand Reduction and have frequently worked with INCB and other agencies in implementing highly specialized workshops in drug control.

The Pompidou Group of the **Council of Europe** was set up in 1971 following a proposal from the then French President, Mr Georges Pompidou, with the aim of examining the problems of drug abuse and illicit traffic from a multidisciplinary aspect. The Pompidou Group convened the first Pan-European Ministerial Conference to promote cooperation between East and West Europe on drug-related problems in 1991. Since then, membership of the Group has been extended by East and Central European membership of the Council of Europe to a current total of 40 countries.

The Pompidou Group has undertaken several major projects and studies including a Symposium on the Care of Hard-core Addicts (1983) and a Multi-City

Poppy being lanced to produce opium.
Photo: UNDCP.

Study of Drug Misuse (1987), updated with additional cities (1993). A principal aim of this project was the development of indicators for improving data collection and epidemiological knowledge.

Other activities include the creation of networks for discussions between police and customs personnel at airports and seaports, seminars on alternative prevention and treatment, and funding of field trips by therapeutic personnel from the Central and Eastern European countries. The Pompidou Group also arranges workshops and develops study material on the control of chemicals used in the production of narcotic drugs.

The Council of Europe Convention on Laundering, Search, Seizure and Confiscation of the Proceeds of Crime, adopted in 1990, constitutes a comprehensive multilateral instrument against money laundering. It was extended beyond the countries comprising the Council of Europe to include the USA and Australia.

The **European Union (EU)** has had an institutional mandate to deal with drug control since the 1985 decision by the Interior and Justice Ministers of the TREVI group (Terrorism, Radicalism, Extremism and International Violence) to include drug trafficking on its agenda, together with organized crime and terrorism.

In 1989 the Community Heads of State established CELAD, the European Committee to Combat Drugs, to establish a coordinated EU policy on drug control. CELAD drafted the first European Plan to Combat Drugs, approved by the European Council in December 1990. A second version of the Plan was approved by the European Council meeting in December 1992. In 1990 a European Policy Cooperation Group on Drugs was set up to establish forms of cooperation with developing countries, in particular drug-producing and transit states.

Three statutes relating to drug trafficking impose legally binding obligations on Member States – a council regulation on measures to prevent the diversion of precursor chemicals for drug production, in force since 1991, which calls for strict controls on documentation, identification, and the import and export of specified chemicals; a council directive of 1992, regulating movement of precursors within the Community; and a Council Directive aimed at preventing the laundering of drug profits through the financial institutions of the Community, in force since January 1993. Member States which do not apply Directives and Regulations may be taken to the European Court of Justice.

The European Parliament has produced two reports dealing with drug abuse and trafficking, the first in 1986, the second in 1991.

An EC Council Regulation of 1993 established the **European Monitoring Centre for Drugs and Drugs Addiction** to provide reliable and comparable information at European level concerning drugs and drug addiction and their consequences. It began to function in 1995. The Centre's mandate focuses on data collection, research and analysis in the areas of: demand reduction; national and Community strategies and policies; international cooperation and the geopolitics of supply; control of trade in narcotics, psychotropic substances and chemical precursors; and implication of the drug phenomenon in producer, consumer and transit countries (including money laundering).

The Maastricht Treaty which came into force on 1 November 1993, abolished CELAD and significantly altered the structures involved in drug issues within the EU such that responsibility for drug matters were re-distributed between each of its

The Maastricht Treaty redistributed responsibility for drug issues.

three 'pillars' – Public Health (Article 129), Common Foreign and Security Policy (Title V), and Co-operation in the fields of Justice and Home Affairs (Title VI).

The former European Drugs Intelligence Centre, officially known as **Europol** since the signing of the appropriate convention in July 1995 (which had yet to be ratified in 1996), is included in this third 'pillar' of the Treaty. Europol is the central coordinating body for the exchange and analysis

of criminal intelligence concerning illicit drug trafficking, illegal immigration, trafficking in human beings, in vehicles, in radioactive and nuclear substances, and associated money laundering activities. It has no operational powers. Its specific aim is to make a significant contribution to the EU's law enforcement action in combating serious international crime and dismantling international criminal organizations. Its principal tasks will be:
(a) Exchange of information and intelligence;
(b) Support and coordination of operations;
(c) Operational analysis; and
(d) Technical and tactical support.

In 1994 the Commission adopted a European Action Plan to Combat Drugs for the years 1995 – 99. This provided a new framework for a drug control strategy covering three key elements:
(i) Prevention of drug dependency;
(ii) Reduction of drug trafficking; and
(iii) Action at the international level.

The main elements of the proposal place greater emphasis on demand reduction as an integrated approach to the drugs problem, compared to the greater emphasis given in the past to reducing supply and eliminating trafficking. The Plan acknowledged that drug dependence could not be considered in isolation from other health problems and issues such as tobacco consumption, the abuse of alcohol, solvents and pharmaceutical substances, communicable diseases, the spread of HIV among injecting drug users, health promotion and health education – some of which were already being tackled through other Community programmes.[16]

5.6. THE ROLE OF INTERNATIONAL AGENCIES IN DRUG CONTROL

Several intergovernmental organizations have a close involvement in drug control, of which the most prominent are ICPO/Interpol and the World Customs Organization.

Interpol
The International Criminal Police Organization (ICPO/Interpol), comprising 175 Member States, established a drugs sub-unit as early as 1930. Its current objectives include:
(a) To enhance cooperation among national drug law enforcement services and to stimulate the exchange of information between all nations and international bodies concerned with countering illicit production, traffic and use of drugs;
(b) To strengthen the ability of national services to control illicit drug traffic. To accomplish this, the Drugs Sub-Division maintains a data bank containing all relevant drug-related information with an index of identified drug traffickers; coordinates requests for information and investigations and compiles and disseminates tactical and strategic intelligence. The Sub-Division comprises two groups, the Operations Group and the Intelligence Group. The Psychotropic Substances Section, a division within the Intelligence Group, monitors information on the illicit manufacture, diversion and distribution of psychotropic substances. It has organized seminars with CICAD and with the US Drugs Enforcement Administration on measures to control the manufacture and distribution of precursor chemicals and to prevent their diversion to the illicit market.

One of the most important tasks of the ICPO/Interpol General Secretariat is to counteract money laundering. The *Fonds provenant d'activités criminelles* (FOPAC) group set up to deal with this problem, is responsible for matters concerning money laundering, the confiscation of assets of illicit origin and financial investigation techniques. [17]

World Customs Organization (WCO)
Formerly known as the Customs Cooperation Council, WCO is a specialized intergovernmental organization whose main objectives are: (1) to develop, promote, implement and maintain international customs and trade instruments; and (2) to provide guidance and assistance to members to achieve optimum results in the correct observance and application of such instruments. At present 132 countries are members of WCO.

Since its foundation in 1953, WCO has been aware of the need for countries to protect themselves by taking adequate measures against various forms of smuggling and customs fraud, and, in particular, against illicit traffic in narcotic drugs and psychotropic substances. To assist countries in meeting this requirement, WCO's Enforcement Sub-Directorate has over the years taken various measures of both a legal and practical nature. Examples are given in Part 6.5.

UNDCP and WCO have several on-going joint projects for the development of Regional Intelligence Liaison Offices in Africa, Latin America and the Caribbean, Asia and the Pacific and Eastern and Central Europe. The main objective is to improve law enforcement cooperation at national, regional and international levels by developing a regular drug enforcement reporting and analysis mechanism among participating countries as well as with other regional offices.[18]

5.7. THE ROLE OF NON-GOVERNMENTAL ORGANIZATIONS (NGOs)

Non-governmental organizations, with their ability to activate a wider civil society and all its components, have a unique contribution to make in tackling drug-related problems. NGOs exist in every shape and form, from the large and sophisticated to the modest group of volunteers trying to make an impact at the local level. Some have a great deal of expertise in highly specialized, drug-related fields, particularly in the area of demand reduction; while others are involved in various activities which, while not exclusively drug-oriented, have an impact on the problem. These cover the whole spectrum of social development, from poverty alleviation and employment generation to the promotion of healthy, recreational activities for young people. NGOs also have an important advocacy role to play in voicing citizens' concerns *vis-à-vis* those of governments and international bodies.

Activities carried out through NGOs, as opposed to governments, have a number of potential advantages. NGOs often have closer relationships with their local constituencies and can be very successful in implementing and sustaining small-scale projects. Working through organizations with roots in the community can help build up local people's capacity to manage and improve their own lives. They may also provide greater continuity of services (since governments change, and with them their policies and priorities). NGOs can respond in a more timely and flexible way to changing trends than government services, whose funding mechanisms and bureaucracies can be slow and expensive. In some cases, NGOs may be the only providers of services to cope with drug abuse.

The significant role played by NGOs was acknowledged in article 71 of the Charter of the United Nations, which recognizes them as an important channel of communication between the UN and the general public. It is only in recent years, however, that more emphasis has been placed by United Nations bodies on cooperation with NGOs.

UNDCP has worked with NGOs for many years in a variety of ways. NGOs have, for example, acted as project executing agencies, consultants, beneficiaries and donors. Over the years, UNDCP has entrusted two dozen different NGOs with the execution of technical cooperation projects. At the start of 1996, various NGOs were implementing projects with budgets totalling almost US$11 million. While the majority of NGO-executed projects have been in the field of demand reduction, the implementation of large-scale rural development activities, designed to lessen the economic dependence of peasant farmers on illicit crops, has also been carried out by NGOs.

Three major NGO forums on drugs have been sponsored by the United Nations over the last ten

Kenyan NGO involved in preventive education.
Photo: UNDCP.

years – Stockholm (September 1986), Vienna (June 1987) and Bangkok (December 1994). These meetings have proved valuable for promoting exchanges of expertise, information, ideas (technical, fund-raising, organizational) and the formation of umbrella groups and networks to continue the exchanges at the regional and local levels. Such forums have also presented opportunities for drawing the non-specialist NGOs into the arena.

High profile meetings at which the NGO voice is heard can also be occasions for making an impact on drug control policy at both government and international levels. NGOs in consultative status with ECOSOC may attend United Nations Conferences and functional commissions (such as the Commission on Narcotic Drugs) as observers and may also seek to influence such policy-making bodies through their statements. It is expected that, as a result of the current ECOSOC review of relations with non-governmental organizations, in the future consultative status (and thus access to conferences and functional commissions) will become easier to acquire for specialist NGOs, especially national ones.

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The Regulation-Legalization Debate

The three drug control Conventions constitute a recognition by the international community of a global problem requiring international cooperation and the acceptance of a collective responsibility to deal with it. The aims of the Conventions are to ensure adequate supplies of narcotic and psychotropic drugs for medical and scientific purposes only, to prevent drug abuse and to prevent and suppress illicit manufacture, diversion and trafficking. Their strength derives from the breadth of consensus that inspired them and from their foundation in international law; their weakness stems from their status as a compromise solution for nations of widely diverse historical, cultural and legal traditions, and from their relative difficulty of adaptation to fast-changing conditions.

The guiding principles of the Conventions rest on the control of supply and on that of demand through supply, whereas measures specifically aimed at reducing or eliminating demand have traditionally been regarded as a matter for national legislation. Countries party to the Conventions may be criticized for a lack of commitment to supply reduction strategies, but are rarely held accountable to the international community for inadequate endeavours to prevent and treat drug abuse.

The slant towards supply-side measures has encouraged a relative harmonization in this field and, conversely, has encouraged diversification on the demand side. The policy of disrupting international supply lines from 'producer' to 'consumer' countries was absorbed easily into the logic and rhetoric of the cold war and, in the first few years after 1989, seemed almost to take its place. Yet in recent years there has been increasing criticism that the resources poured into the 'war on drugs' have been badly spent; and that the international drug control regime, instead of contributing to the health and welfare of nations, may have aggravated the situation. Several factors, such as worsening drug abuse problems in developing countries and concern over the transmission of blood-borne infections by injecting drug users, have led to a new focus on the drug consumer, both as a principal source of the problem and as the only medium through which a viable solution can be reached.

There is a new focus on the drug consumer as the principal source of the problem.

Amidst perceptions of an impasse in the drug policy field, numerous pressure groups have emerged, calling for changes to international drug control through the relaxation of prohibition - for example, through modifications to the existing drug control Conventions - and through a new emphasis on measures to reduce the harm associated with illicit drug use. Because these groups are eclectic in background and include academics, politicians, medical scientists, economists and influential opinion leaders, for the most part motivated by serious and well-founded concerns, they represent a serious challenge to the current philosophy of drug control.

The UN's principal drug control agency, the United Nations International Drug Control Programme, (UNDCP), can only act with a mandate from Member States; nonetheless it has a responsibility, through the forum of the Commission on Narcotic Drugs (CND) (see Part 5.3), to examine the criticisms made of the three Conventions and to evaluate alternative proposals. Equally importantly, it has a responsibility to engage all UN Member States in the discussion, in order to take the debate beyond the relatively narrow geographical boundaries within which it has been confined, and to examine the consequences of alternative drug control measures in terms of the economic, health and social effects such changes might cause.

The 'great debate' of today's drug policy, often referred to as 'the legalization debate', is in many respects a misnomer. It should perhaps be renamed the 'regulation debate', since what is at issue is not so much an outright choice between prohibition and legalization, as the degree of regulation to which currently illicit drugs should be subjected. Excessive concentration on these two extremes has diverted attention and energy from the serious questions the discussion raises.

In the first place, neither 'extreme' is quite as radical as its detractors make out: few if any proponents of legalization would have all drugs available to everyone without restrictions, but aim to establish a legal regime of controlled quality and availability. Nor, despite the polemics, do either of the three international drug Conventions insist on the establishment of drug consumption *per se* as a punishable offence. Only the 1988 Convention clearly requires parties to establish as criminal offences under law the possession, purchase or cultivation of controlled drugs for the purpose of non-medical, personal consumption, unless to do so would be contrary to the constitutional principles and basic concepts of their legal systems. None of the Conventions requires a party to convict or punish those who commit such offences, even when they have been established as punishable; alternative measures may always substitute for criminal prosecution. Countries party to the drug Conventions in which natural plant-based drugs such as coca, opium and cannabis were traditionally used, were granted a time period during which use was to be discouraged and gradually phased out. Continued cultivation was permitted for scientific and medical purposes, for the use of raw materials such as poppy straw and hemp and, in the case of coca, for preparing a non-alkaloid flavouring agent for a variety of uses.

"The legalization debate" is in many respects a misnomer.

The range of options concerning personal consumption and possession for such consumption lie along a continuum, which reflects not only the degree of control specified by the law, but also the degree of discretion with which the law is applied. The options include severe repression of possession and use; firm to moderate repression, with exemptions to include maintenance prescribing for dependent persons in treatment; discretional use of the criminal law (non-prosecution of first offenders, treatment as alternative to prison etc.); policies of harm reduction; tolerance; decriminalization; *de facto* legalization and, finally, legalization.

There are many popular misconceptions surrounding what different drug control regimes in the past (or lack of them) have achieved or failed to do. The lack of sustained scientific analysis of past experiences, and the uniqueness of each historical moment, permit diverse interpretations. However, in some cases, examination of a particular experiment or period provides a yardstick against which actual and hypothetical policies can be measured. Several examples are given below.

Legalization – China

China is the only known case of when legalization of a psychoactive drug – opium – was forcibly imposed upon one nation by the will of another. The opium trade between India and China was developed in the 1770s by the then British Governor General of Bengal, Warren Hastings. His concern about the effects of opium on the local inhabitants caused him to stop opium use in Bengal and encourage its export to China. By 1830, one British firm in China was selling 6,000 chests of opium per year domestically, despite the existence of a ban imposed by the Chinese Emperor. The attempts made by the Chinese authorities to enforce the ban led to two Opium Wars and the seizure of Hong Kong by the victorious British. As part of the settlement, China was compelled to accept unlimited imports of opium on payment of a duty. The opium trade became so successful that large areas of agricultural land in China itself were given over to cultivation of the opium poppy, while by 1906, it was estimated that 13.5 million Chinese, or 27% of the adult male population, smoked opium.[1]

Prohibition – USA
The period of national alcohol prohibition in the United States of America, which lasted from 1920 to 1934 is, paradoxically, cited by both opponents and advocates of legalization to support their case. In fact the 18th Amendment did not ban the possession or consumption of alcohol, but the "... manufacture, sale or transportation of intoxicating liquors within, the importation thereof into or the exportation thereof from the United States". During the period alcohol consumption dropped by 30 – 50% and the incidence in men of cirrhosis of the liver, which had been 29.5 per 100,000 in 1911, dropped to 10.7 in 1929.[2] On the other hand, the prohibition years were characterized by a growth in organized crime, corruption and violence, and by a high incidence of death and disease caused by consumption of home-produced 'moonshine' and industrial alcohol. Even without prohibition, other factors such as the temperance movement had a considerable influence in lowering drinking rates; at roughly the same period in the UK, which severely restricted times and outlets for sale of alcohol without imposing an outright ban, the cirrhosis rate dropped by half between 1914 and 1920.[3] The particular circumstances of prohibition – the fact that the ban was of a substance with a long, uninterrupted history of social acceptability, and occurred in a period overshadowed by world war and by economic depression – make it difficult to extrapolate lessons for modern times.

The 'British System'
The 'British system' generally refers to a period lasting from around the 1920s until the mid-1960s when British physicians could prescribe heroin to certain types of addict. Most were middle class who had become dependent on opiate pain killers during hospital treatment. The system fell into disrepute through the over-prescribing practices of a few doctors, and the consequent development of a black market, which in turn was augmented by an influx of cheap, high quality heroin from Iran and South-East Asia. The rapid rise in the number of dependent heroin users (an estimated 30-fold increase in 10 years) and the growth of a youth drug culture caused public alarm and served to politicize the issue. With the availability of non-injectable opiates such as methadone, the willingness – and the right – of doctors to prescribe heroin became severely circumscribed. Twenty years later the HIV/AIDS epidemic caused health priorities to dominate drug policy once more, with the prescription of injectable drugs by specially registered doctors to certain categories of addict. Throughout the UK drug abuse treatment clinics provide condoms, clean syringes and other services to limit the harm from drug injection practices.

US Cannabis Decriminalization
In the 1970s, eleven US States decriminalized personal possession of cannabis and made it a civil offence punishable with a fine. Most states did not record significantly increased rates of consumption over those that did not decriminalize, with the exception of Alaska, where 12 – 17 year-olds were smoking joints at twice the national average by 1988 – cannabis was recriminalized in 1990.[4] In general, an accurate analysis of the precise impact of legislation was hampered by weaknesses in survey techniques and by the general climate of tolerance (presence but non-enforcement of laws) which led to a peak of cannabis use in 1979.

Switzerland
Switzerland has become the testing ground for radical drug policies, particularly at the liberal end of the spectrum. Since the end of the 1970s a number of 'open' drug scenes had existed in the city of Zurich, including the park of Platzspitz, although it was used only for cannabis dealing until 1986, when heroin dealers moved in. The rapid spread in Switzerland of HIV/AIDS through injecting drug use, modified local and city government policies from a repressive-permissive mix to a focus on containment and *Ueberlebenshilfe* (survival assistance). In 1987 more than 20 governmental and non-governmental health and social care groups moved into 'Needle Park' to provide medical help, resuscitation teams, oxygen equipment, condom and syringe dispensing facilities, mobile kitchens, toilets and

showers. The park attracted increasing numbers of users, many of them from outside Switzerland. Despite the services provided, health and social problems increased, as did crime rates in and around the area. The city reacted by providing alternative services such as 'low threshold' methadone programmes and other harm reduction measures (see Part 6.2). In March 1989, 2,150 free syringes were distributed each day; four months later the number had trebled. A total of 234,000 syringes were handed out in the month of June 1990, while the average number of resuscitations had risen over the year from 3.5 to 6.2 per day. Addicts were injecting more, not less. Shootings, stabbings, robbery and theft became more common as Turkish, Lebanese and Yugoslav dealers competed for market shares. In October 1991, the district authorities ordered the city government to close the park. In compensation, medical and social services were made generally available to all addicts, not just those from Zurich. In the short term, criminal activity diminished, illegal drugs became more expensive and less available, while the number of drug-related deaths in Zurich fell.[5] With the closure of Platzspitz the open scene moved to an area round the disused railway station of Letten. Although one aim of the policy had been achieved – the level of HIV infection ceased to rise – a similar pattern of lawlessness and violence developed, and the Letten open scene was also closed down in February 1995.

The failure of Zurich's attempt to contain the city's drug problem geographically, and to deal with it humanely, led to a refocusing of Swiss drug policies. On the one hand, open scenes ceased to be tolerated, with more repressive policies introduced that were aimed at removing the public nuisance factor. On the other, alternative programmes of harm reduction were launched. A major experiment was begun to distribute injectable opiates, under medical supervision, to 1,000 hard core addicts, for whom other forms of treatment had failed. This three-year experiment, which received a special dispensation from the International Narcotics Control Board for the import of heroin, began in January 1994 in the German-speaking cities of Basel, Zurich and Thun; it provides injectable heroin, morphine or injectable methadone to addicts up to three times a day for a small daily fee. The World Health Organization has been invited to make an independent assessment of the expermiment at its conclusion. In the meantime, the Netherlands and Australia were considering embarking on similar trials.

From 1992 Switzerland began to experiment with the use of specially created 'shooting galleries' known as *Fixerräume* or *Gassenzimmer*. Use of these premises for injection purposes was restricted to drug dependent individuals known personally to the staff. Drugs were neither prescribed, distributed nor traded. In August 1992 some 70 – 80 individuals were using the premises daily between the hours of 1800 to 2200.

The Netherlands
For over 20 years Dutch drug policy has been firmly rooted in principles of harm reduction (see below). A distinction is drawn between cannabis derivatives and drugs such as heroin, cocaine and psychotropic drugs deemed to 'present an unacceptable risk', with the aim of separating the consumer market for 'hard' drugs from that of 'soft' drugs. Dealing in 'hard' drugs is not tolerated and trafficking is punishable by lengthy prison sentences. Possession for personal use of almost any drug is tolerated, methadone maintenance is standard practice for opiate dependency, and clean syringes are distributed without charge. Until the end of 1995 the sale or purchase of up to 30 grams of cannabis derivatives was *de facto* decriminalized and tolerated in specified locations. However, complaints from European neighbours at the growth of 'drug tourism', a rise in domestic cannabis consumption, and fears that the cannabis trade was being used as a front by organized crime groups trafficking in more dangerous drugs, caused the Dutch government to implement tighter controls. The number of 'coffee shops' and other retail outlets for cannabis was reduced by 50% while those that were allowed to operate had to adhere to five principles: no advertising; no sale of hard drugs; no nuisance to the neighbourhood; no selling to minors; and no sales of more than five grams.

Germany
German drug policy incorporates elements of both the Dutch and the Swiss approaches. A decision taken in 1994 by the German Federal Constitutional Court held that while the possession, purchase and sale of even small quantities of cannabis derivatives for personal consumption should remain illegal, it was not generally in the public interest to prosecute such offences. The individual *Länder* were required to accept this principle, and to ensure the introduction in due course of a standardized national practice with regard to discontinuation of proceedings on the part of the competent public prosecution offices. In practice, the margins set on personal use of cannabis have varied widely from, for example, six grams in Bavaria up to 30 grams in Schleswig Holstein. A sizeable movement in Germany calls for wider forms of decriminalization and even legalization. Several German towns also provide premises for injecting drug users, known as *Gesundheitsräume* or 'health rooms'.

Harm reduction
The principles of harm reduction, which are sometimes confused with those of legalization, have a different starting point from policies aiming at abstinence or based on intolerance of use. They accept the recourse to illicit drug use as an inevitable, though undesirable, weakness of human nature which has been created at least in part by society's failure to provide adequate opportunities for the relief of stress, boredom, loneliness or for self-realization. Proponents of harm reduction believe that drug policies based on abstinence are bound to fail because they ignore the root causes of the problem – that what is required are policies which help to free individuals from the circumstances which led to the drug taking, enabling them to decide autonomously to quit. The transmission of HIV and other blood-borne infections through sharing drug paraphernalia, the recourse to crime in order to pay for the dependency; the uncertain quality of drugs purchased on the street; and the social marginalization of consumers are all cited as factors which necessitate a better integration of drug users and the provision of assistance to them, including drugs if necessary. It is claimed that by giving such care crime levels will fall, cities will become less violent, dependent drug users will be healthier and more integrated into society and thus more likely to return to a productive life. The ultimate objective is the overall reduction to a minimum of the harm caused by the drugs, and also of the harm perceived as being caused by the illegal status of drugs. These principles were incorporated into the "Frankfurt Resolution", a declaration signed by representatives or city counsellors of nine European cities in Frankfurt in 1990. The signatories proposed that:

The principles of harm reduction are sometimes confused with those of legalization.

(i) The criminal law should only be used to repress drug trafficking;
(ii) Neither the consumption nor the possession of drugs for purely personal use should be prosecuted;
(iii) Help should not be linked only to abstinence – survival assistance should be a first priority;
(iv) There should be a separation in law between cannabis and other illegal drugs;
(v) The use, purchase and possession of cannabis should be decriminalized;
(vi) Trade in cannabis products should be placed under legal control; and,
(vii) Prescription of drugs to addicts under medical supervision should be considered.

While these proposals are not national policy, cities in several East and West European countries implement them to the extent possible. An alternative association, known as European Cities Against Drugs, has been formed to oppose any such relaxation in existing laws.

Many of the arguments put forward on behalf of harm reduction may also be applied through a flexible interpretation of prohibition. Some stricter forms of prohibition forbid syringe exchange schemes

and stigmatize addicts such that they are afraid to come forward for treatment, but this is less a condition of prohibition *per se* than of a particularly severe interpretation of it. The likelihood of transmission of the HIV virus through injecting drug use is one of the strongest arguments for a harm-reduction approach: the World Health Organization estimated that about 40% of recent AIDS cases were caused solely by sharing injecting equipment, compared to about 16% in 1985.[6] In Scotland the seropositivity rate in Edinburgh, where maintenance prescribing and needle exchanges had been opposed, rose to over 50% in the mid 1980s,[7] whereas in Glasgow, less than 50 miles away, where such facilities were available, the level was less than 5%.[8] However, the sharing of injecting equipment depends upon more complex factors than availability – in Italy, the European country with one of the highest HIV positive rates amongst injecting drug users, syringes are available at low cost in any supermarket.

Legalization
Many of the premises underlying the pro-legalization argument resemble those of the harm reduction lobby, but they go considerably further. While most harm reductionists believe in decriminalizing cannabis and making other drugs available to dependent users, few recommend that drugs be made more widely available through the removal of criminal sanctions from the entire trade. The case for legalization is based on a mix of arguments drawn from economic, health/social and philosophical analyses. The principal assumptions are:

Legalizers maintain that prohibition's combined costs to society are not repaid by its doubtful benefits.

(i) The policy of declaring a 'war on drugs' has been a failure – despite the colossal investment made in law enforcement, more drugs are available now than ever before. Courts and prisons in many countries are overburdened by drug possession offences, in particular those relating to cannabis, while many serious crimes go unpunished.
(ii) The adulteration of substances causes more harm than the drugs themselves. Under a legal regime there could be quality control, better knowlege and education about drugs and their effects; taxes could be levied to provide improved health care for problem users.
(iii) Consumption might rise initially, but would level out to 'moderate' levels in most cases.
(iv) The criminal law has no right to interfere with personal behaviour if it causes no harm to others.
(v) The sole beneficiaries of prohibition are criminal profiteers: legalization would remove the profits, cause the cartels to collapse and put an end to much of the violence and crime that are inherent in the illicit market.

The overall conclusion is that the combined costs to society in terms of higher crime and violence, the drain on financial resources and the sacrifice of civil liberties, are not repaid by the doubtful benefits that prohibition can bring.

Policy failure?
Few would argue that prohibition has been unequivocally successful, and many prohibitionists would admit that the attempt to curb the supply of illicit drugs has substantially failed. Despite major law enforcement expenditures, which ranged in the USA from US$4.7 billion in 1988 to US$12.3 billion in 1993, the street price of both cocaine and heroin decreased,[9] indicating an increased availability. Nevertheless, prohibitionists believe that the *absence* of prohibition would have created problems even worse than its presence, perhaps analagous to the health consequences of the abuse of the legal drugs, alcohol and tobacco. It is argued that illegal drugs should be made legal because the number of illicit drug-related deaths – which some estimate to be around 20,000 a year in the USA – is slight compared to the 100,000 alcohol-related mortalities and the 400,000 attributed to tobacco.[10] Yet legalizers who use as an 'argument' that the currently legal drugs are associated with proportionately more harm than the illegal ones, may simply be shooting themselves in the foot. Reuter et al.[11] have suggested that, if

out of 100 million adult consumers of alcohol in the USA, approximately 15% suffer long-term consequences and if, under legalization, only a quarter as many consume heroin as consume alcohol but with a similar percentage of harm as a result, then instead of 750,000 addicts there would be 3,750,000 heroin addicts in the country. They speculate that the 'capture rate' – the proportion of occasional users who become habitual – might in fact be closer to that of cigarettes, that is over 50%.

Kleber[12] also points to problematic use of the legal drugs, and to the existence of 50 million nicotine addicts and 18 million problem drinkers, compared to less than two million cocaine addicts. He suggests that under legalization the numbers of cocaine users might jump to between 20 – 25 million, of whom 4.7 – 15.8 million might become compulsive.

A further argument that could be set against that of policy failure is that, in several western industrialized countries, there are signs that the current drug cycle has begun to stabilize, and in some cases even to decline among the general population.[13] Legalization might serve to re-stimulate a waning interest. The decline must of course be seen in the light of an upsurge in the consumption of synthetic stimulants and, for heroin and cocaine, a higher harm per user level caused by fewer people consuming proportionately greater amounts – in the USA it was estimated in 1994 that 25% of users were taking 75% of the cocaine consumed.[14] But if the cumulative effects of prohibition and increasing public awareness of the negative consequences of long-term drug use have served to erode the user population base in a significant area throughout the world, then its achievements are not negligible.

Prohibitionists believe that the **absence** *of prohibition would have created problems even worse than its presence.*

Developing country impact

A striking aspect of the legalization debate is that it takes place almost exclusively in and about western industrialized nations, and the availability of literature on the subject reflects this. Yet economic and geographic spaces have shrunk, reducing the planet to a single market place. Changes in drug policy, or in trafficking and consumption patterns, have repercussions that extend far beyond the confines of a single country. The existence of rigorous law enforcement in one region displaces trafficking activities to areas of greater tolerance; choice of location for the management of illicit capital is determined by the absence or laxity of money laundering legislation; and regions of the world perceived as 'virgin' consumer markets are carefully targeted by traffickers in search of market expansion. It has been claimed as an argument against prohibition that the outlawing of opium and coca use has actively encouraged trafficking of the lower-bulk, more easily concealable heroin and cocaine in powder forms; and that parallel to this – also as a consequence of illegality – consumers have been compelled to use the most concentrated form of the drug available, often through injection. Heroin injection is becoming an increasing problem in India, Thailand and Myanmar while injection of cocaine and of ampetamine-type stimulants is spreading in Brazil.[15] To what extent prohibition has contributed to this situation must be carefully studied: any association is likely to be complex, and may furnish only part of the answer. Many accessories of modern life, from Coca Cola to Levi jeans and Scotch whisky, perceived as deriving from the affluent West, are adopted in poorer countries as status symbols, indicators of cosmopolitanism and sophistication. The use of cocaine in particular has become a hallmark of success amongst newly affluent groups in societies undergoing a period of particularly rapid economic change. If the pattern follows a course similar to that in the USA in the early 1980s then the use of crack cocaine or ATS may start to have a devastating impact on the poorest economic sectors of fragile developing democracies. Signs of an emerging trend are already showing up (see Part 1, Box 1B).

Legalizers assume that licensing opium poppy and coca farmers for cocaine production would benefit the Asian and Latin American economies. According to Nadelmann[16] the notion that "... we can keep ... millions of peasants unemployed or under-employed and living on a few hundred dollars, at most, around the world pursuing a better standard of living through crop substitition is laughable." Admittedly, crop substitution alone provides no long-term solution, but has long been superseded by the wider concept of alternative development (see Part 6.3). Whether legalization would provide a better overall standard of living is by no means certain. Two main alternatives might emerge: first, that the drug manufacturing cycle would continue to be dominated by past market leaders – the cartels – who would see their fortunes consolidated. As newly 'enfranchised' captains of industry they would doubtless seek to strenghten their position through political election and occupation of crucial financial and economic centres of power. Corruption, as it has functioned in the narcotics world, would no longer be a question of *plomo o plato* (bullet or silver) but would be blatant, overt lobbying. Institutional corruption functions perfectly efficiently without the pressures of drug traffickers, as the fall from grace of numerous European and Asian public figures shows.

The second and possibly more likely option is that the multinational pharmaceutical companies would establish a virtual monopoly over the manufacture and distribution of formerly illicit drugs. Given the long experience of the pharmaceutical industry in regulation and in quality control this would represent a natural development, both for psychotropic drugs and for the plant-based products. Under a legal regime regulated by an international control mechanism, more efficient, streamlined, and cost-effective methods would be introduced, either by synthesis of the traditional plant materials, or else by relocation of some cultivation to geographically more convenient centres where standard quality could be assured. California might become the world centre of cannabis cultivation, for example. In this scenario the peasant farmers would be the prime losers. Next would be the middle men: the jobs of hundreds of thousands of intermediaries between the farmers and the major trafficking groups would vanish, with significant repercussions for local economies. Although the extent to which the illegal drug economy boosts the legal one is unknown (see Part 4) there could in the short term be a sudden fall in dollar revenue, collapse of land prices and a possible migration of farmers looking for new employment in the cities.

The degree to which the governments of poorer countries would be willing or able to deal with the consequences of legalization is not at all certain. Setting aside the economic safety net that might be required to integrate coca and opium poppy farmers into a free market economy, equally important and potentially larger investments would be needed to provide education and health care programmes to prepare for the generalized availability of a wide range of psychoactive substances. For an economically hard-pressed government weighed down with large public debts and an eye on re-election, the value of long-term invisible investment might be neglected in favour of the more tangible benefits derived from short-term financial measures.

Moreover, if the past practices of the pharmaceutical and tobacco companies can be taken as precedents for the way in which a marketing drive for other drugs would be run, then a serious danger exists that targeted advertising might weaken any prevention efforts. A report published in 1993 by the French branch of the organization, Medical Lobby for Appropriate Marketing (MALAM), showed that misleading advertising was being used by pharmaceutical laboratories to market their products in developing countries. Out of 6,170 advertisements published in 23 large circulation medical magazines between July 1987 and June 1988, contra-indications were omitted in half and undesirable side effects in 40%. Another study, commissioned by the US Congress from the Office of Technology Assessment, revealed that about two-thirds of 241 medicinal products sold by American laboratories to four developing countries (Brazil, Kenya, Panama and Thailand) did not carry enough information to enable doctors to prescribe them effectively and safely. As a result of MALAM's lobbying, nine products were

withdrawn from sale or had their formulae changed after 1987, while the advertising of 16 other products was totally or partly stopped.[17]

Samarasinghe[18] points out that there are important differences between drug use in poor countries and in affluent societies. In the industrialized countries drug use is perceived as harmful when evidence of medical complications, dependence or major social or family disruption occurs. In poor countries such as Sri Lanka, the economic impact of apparently non-problematic substance use can constitute a steady drain on family resources. What in the West would be considered 'acceptable' – a daily consumption of four cigarettes and two units of alcohol by one member of a household – amounts to 40% of the earnings of a family in the lowest income quartile of Sri Lanka.

An "acceptable" consumption of cigarettes and alcohol in the West amounts to 40% of the earnings of a poor Sri Lankan family.

It is recognized that the groups most vulnerable to drug abuse are those where social cohesion is weakest, and this is especially true at the end of the 20th century as traditional social and economic patterns in many parts of the world have undergone major upheaval. As discussed in Part 2, these changes may produce a sense of rootlessness which in some cases leads to drug use. Samarasinghe suggests that where there is a wide range of leisure pursuits and avenues for enjoyable social interaction, alcohol use may be an adjunct to generally pleasurable activities. In poorer settings there is less enjoyable stimulation, and the pharmacological effect produced by a drug, whether pleasant or not, serves as the central experience in the drug-taking ritual rather than being simply an accompaniment to activities which are in themselves pleasurable. He points out that the pure effects of drugs of dependence, with the exception of stimulants, are not inherently rewarding when conditioned cues do not operate, and that a social process is required to make users continue using the drug until the effect itself acquires conditioned ability to evoke positive reactions. The process of conditioning, and later of dependence, is hastened by the absence of experiences which are in themselves pleasurable, and thus, he argues, drug users in developing countries tend as a result to develop features of the dependence syndrome at much lower levels of consumption than they do in the developing world. This too must be weighed up when considering the effects of legalization.

The administration of legalization

One of the most controversial areas in the legalization debate surrounds the exact form of regulation that the legalized drugs would have – whether the regime would be operated under government monopoly or private franchise; what form of overall control would be exercised by international or national control bodies to ensure quality and guarantee supplies; how drugs would be dispensed and by whom (doctors, pharmacies, tobacconists or others); under what conditions – whether exceptions would be made for minors and certain special categories; and which drugs would be legalized – cannabis only, or all currently illicit drugs.

If the process were in the hands of private enterprise there would have to be some regulatory body to impose levels of potency, standards and quality control. A choice would have to be made regarding whether the newly legal drugs would be sold as cigarettes are, with a label indicating contents and with a health warning, or according to the current restrictions on legal pharmaceuticals, which go through a prolonged period of scientific controls and tests before being released commercially. At present, a two-fold regime operates – restrictions designed to prevent abuse; and prescribing and dispensing limitations designed to prevent health injuries and to promote compliance with good clinical practice. Without removing public health regulations it would be impossible to ensure the availability of opiates, stimulants and other substances for recreational purposes.[19] Legal liability would be

inconceivable unless full clinical trials were carried out, yet a mere health warning could not possibly cover all the circumstances in which use of a given drug was inadvisable. The whole concept of liability would be altered by the dependence potential of psychoactive drugs.

An effective control apparatus would impose significant costs on the industry which would in turn be passed on to the consumer, and might create space for an unregulated black market. Such costs could be covered by advertising, but this would also require careful supervision – if private enterprises were vying for market shares there would be competition to increase sales and to project the most alluring and benign image of the product concerned. Independent consumer guides would have to guarantee accuracy and impartiality.

The regulation of legalized drug sales would have very different connotations depending upon whether retail outlets were a tobacconist, a pharmacy (over the counter or with a doctor's prescription), or in specialized locations such as the Dutch 'coffee shops' which would also require a system of public licensing. It is not clear what would happen to prescription drugs under legalization – whether one would have an 'automatic' right to heroin but not, for example, to antibiotics. Doctors might resist requests to prescribe psychoactive drugs on demand, on the grounds that their role is to heal the sick, not prescribe for recreation. Ethan Nadelmann[20] suggests that a mail order system could be established whereby any adult could apply for personal supplies of any drug. His proposal would undoubtedly obviate some of the objections to legalization but would require a relatively high-technology, high-cost system with built-in, anti-fraud devices whose operational sophistication and user cost would put it out of reach of most countries.

How would legalized drugs be regulated?

Exempt groups

If an age limit of 16, 18 or even 21 is set (as all legalizers stipulate) then one can assume firstly that a black market would continue, albeit diminished, and secondly that, as occurs with alcohol and tobacco, minors would have more access to legal drugs than they currently do to illegal drugs, partly through parental and older peer access, and partly because the price would be more affordable than at present. In the USA it was reported that 62% of high school seniors had smoked cigarettes, thirty percent of them in the last month.[21] Some 87% of high school seniors admitted drinking alcohol, of whom half had done so in the previous month. There are an estimated 12 million under-age drinkers.[22] Adult precedent sets a strong example for the young; teenagers are alert to hypocrisy in adult behaviour and might resist the warning "it's all right for us but not for you".

To protect the majority of non-consumers from the minority of consumers, new means of drug testing would have to be introduced into a whole range of job categories and activities. It is not clear which categories would be included, but at the very least, they would involve the armed forces, machine operators, drivers, pilots, medical workers, and those working in sensitive industries such as nuclear power. Whether these categories would be under a total or partial drug ban (e.g., weekends permitted) would require careful consideration. The singling out of special categories excluded from the right to consume drugs, and the means for enforcing the exclusion, call into question a whole series of civil liberty issues. The breathalyser test is a relatively low-cost, non-invasive first indicator of alcohol level in the blood which only leads to more thorough testing if the first reading is positive. Introducing comprehensive testing for a wide range of drugs to guarantee an adequate level of protection for the majority of non-consumers would be costly, and might mean a far higher level of invasion of privacy than is currently perceived as tolerable.

The moral question of legislating for drug-taking, pregnant women would have to be faced. It is widely recognized that drug use of any kind – alcohol and tobacco included – may harm the foetus and cause

neo-natal disorders. If such problems rose significantly under legalization, the right to motherhood might be called into question.

Legalize cannabis only?

Most proponents of legalization believe that cannabis should be the first drug to be made legal, but that, given the central aim of depriving the black marketeers of their profits and reducing crime and violence, cannabis legalization alone is not sufficient. Legalizers are often accused, unjustly, of calling cannabis "harmless". It is indisputable that, in certain kinds of individuals and at certain levels of use, cannabis causes problems for physical and mental health such as short-term memory loss, loss of concentration, impaired motor function and bronchial and pulmonary complications. Researchers at the University of California reported in 1988 that one 'toke' of cannabis delivers three times more tar to the mouth and lungs than one puff of a filter-tipped cigarette, and that cannabis deposits four times more tar in the throat and lungs, and increases carbon monoxide levels in the blood by four to five times.[23] Moreover, cannabis tends to be a more potent drug nowadays than it was in the 1960s and 70s, due to cultivation of new strains of the plant which have much higher levels of THC, the drug's principal psychoactive property. Persistent use in adolescence may have serious effects on the maturation process and is thought to contribute to the loss of energy and interest in one's surroundings known as 'amotivational syndrome'.

Cannabis legalization alone is not sufficient to achieve the legalizers' central aims.

On the other hand, consumption does not show the same patterns of long-term habitual or dependent use as does cigarette smoking, and no drug-related mortalities have been directly attributed to the cumulative effects of cannabis. This does not mean that cannabis may not have been implicated indirectly or directly in drug-related deaths such as driving accidents, but merely that, (a) within the range of illicit drugs, it appears the least harmful and (b) for a variety of reasons, perhaps linked to its status as a prohibited drug, the social and health costs resulting from use have been less harmful to date that those of cigarettes or alcohol.

The function of the law in terms of 'symbolic threshold'or 'forbidden fruit' was discussed in Part 2; at least for most young Americans, it seems the law acts more as a deterrent than as an incentive – in separate studies, 60 – 70% of New Jersey and California students reported that fear of getting in trouble was a major reason for not using drugs.[24] On the assumption that the law has a symbolic significance, prohibitionists argue that to legalize, or even to decriminalize cannabis would be to send the 'wrong message' by implicitly removing society's unequivocal disapproval of use. Yet opponents of cannabis prohibition query whether the high social cost in terms of law enforcement, court and prison costs and of social stigma, is justified by the harm the absence of the law would produce. In some countries cannabis offences account for the overwhelming majority of drug law violations that come before the criminal courts. In the UK in 1991, for example, possession of cannabis constituted 94% of cannabis offences, and three-quarters of all illicit drug offences;[25] in Australia 61% of all drug arrests are for cannabis offenders.[26] Of the one million drug arrests made each year in the USA approximately 25% are for the simple possession of cannabis, and constitute the fourth most common cause of arrest.[27]

Many feel that to prohibit a drug which is so widely used is to encourage disrepect for drug laws and for legality in general, and that the harmfulness of the drug has been sensationalized, such that young people feel misled by their elders and no longer believe in the anti-drug messages directed at them. Mark Kleiman, who acknowledges the harm cannabis can do but believes its prohibition produces more costs than benefits, proposes a "new social and legal category of 'grudgingly tolerated vices'" for items

not strictly prohibited, but forbidden to minors and to adults who have demonstrated the inability to consume them responsibly.[28]

Cannabis is often cited as a 'stepping stone' to other drug use on the grounds that it is usually the first drug taken illicitly by dependent heroin users. This affirmation does not prove a causal relationship, and sidesteps the fact that only a tiny proportion of cannabis smokers goes on to take heroin. It also ignores another, possibly valid hypothesis, that the drug user who has already crossed the barrier of legality to experiment with illegal drugs and who has experienced the (comparatively) mild hallucinogenic properties of cannabis, may be more predisposed than a non-user to try drugs with more intense hallucinogenic properties such as LSD.

A study conducted in the 1970s[29] explored the cannabis-heroin link in groups of adolescents in Manhatten. It suggested that cannabis was a gateway to heroin use, less for its pharmacological effects, than for an association with drug sellers which led users to begin selling in order to finance their own habit. The principle of keeping cannabis users from falling into a 'lifestyle of illegality' in its broadest sense has been one of the driving principles of Dutch drug policy since 1976.

The potentially therapeutic use of cannabis in relieving post-chemotherapy nausea, multiple sclerosis, the treatment of glaucoma and in halting the wasting syndrome associated with AIDS is given as a further justification for legalization. In the almost total absence of careful, long-term clinical trials, it would take many years of scientific testing at great cost before cannabis could conceivably enter the official pharmacopoeia. In the short term, for these special categories, decriminalization for personal use would be the only feasible option, and one which would not violate the international drug conventions.

Or legalize all drugs?

The crux of the legalization debate with cannabis, as with other currently illicit drugs, is the likely effect on health and social welfare. The legalizers admit that overall drug consumption would probably rise to begin with, but predict this would drop to a level of moderation. Drugs would be both cheaper – therefore addicts would not have recourse to crime to pay for their habits – and free of the harmful substances currently used to dilute doses for street sale. Addicts would be less likely to inject, and when they did so they would not need to share needles and other 'works'. Even should consumption levels rise, the average harm per user would diminish. Resources saved from law enforcement costs could be diverted to the prevention and treatment of abuse.

The crux of the legalization debate is the likely effect on health and social welfare.

Under legalization, drugs would become cheaper and more available. The number of consumers would be increased by a quota of new users, and existing users would almost certainly celebrate the price reduction by consuming more. That physical availability can and does impact on use has been demonstrated on numerous occasions – in 1973 – 75 a shortage of heroin in New York City interrupted supplies, and with them the recruitment of new users; addiction levels rose again when supplies were re-established.[30] Other examples include the higher rate of opiate abuse among physicians, nurses and pharmacists compared with the general population; the effect of cigarette-vending machines on smoking by minors; the high rate of opiate dependence among American troops in Vietnam compared to the Pacific phase of World War II.[31]

Degree of availability is one aspect which clearly distinguishes legalization from harm reduction. With the latter, the dependent user might be given maintenance doses under medical supervision, usually, though not necessarily, with the long-term aim of quitting. Under legalization the willpower required

to come off drugs altogether might be undermined by the knowledge that the drug of dependence is freely accessible.

The economic availability of drugs, or how price relates to demand, was discussed more fully in Part 4. However research shows that even in dependence-creating drugs there is a considerable elasticity of demand which varies in direct relation to price. Research done on tobacco price elasticities in sub-groups of age and gender showed that the greatest effect on price was on males under the age of 25, with a price elasticity which operated primarily to deter the decision to begin smoking regularly.[32] In Canada, where the average total tax on a pack of 20 cigarettes in 1991 was about seven times the average in the USA, tax increases were thought to have reduced adult cigarette smoking by 35% and adolescent smoking by 62%.[33] The per capita consumption of alcohol in Ontario between 1928 and 1974 varied inversely with the unit price of alcohol in an almost mirror image fashion.[34]

Against these arguments the legalizers would point out that, despite the availability and non-prosecution of cannabis use in Holland, consumption rates are still lower than the USA. The Dutch claim that their low key approach has made cannabis use 'boring'. Nonetheless, there is no majority consensus in Holland, or in any other country that practices decriminalization, to legalize cannabis or any of the other controlled drugs.

Making powerful and relatively untried, mind-altering drugs of dependence widely available would be a high risk venture. In contrast to heroin, which can be substituted by methadone in dependency treatment, there is no such thing as a maintenance dose for cocaine or crack cocaine, nor have substitute substances had proven efficacy in detoxification therapy. The legalizers would say that only a small percentage of consumers ever become addicted, and that social and psychological factors determine addiction more than the properties of the drugs. This may be true in some cases, but whereas heroin addiction can in principle be maintained at a constant level without undue physical deterioration, the same does not hold for stimulants. The administration of cocaine and amphetamines on a regular dosage schedule to normal, healthy human volunteers with no previous psychopathology, without social conditioning influences or the anxiety of being caught and prosecuted, can result in paranoid psychotic behaviour – quite simply, the direct consequence of the drugs' action on the brain.[35]

Making powerful mind-altering drugs widely available would be a high-risk venture.

Economics

Most proponents of legalization envisage a form of harmfulness tax on drugs, to be pitched high enough to serve as a deterrent to use and low enough to prevent the continuation of a black market. Finding this optimum level would call for finely-tuned, economic analysis together with an accurate forecast of likely consumption trends – a hard task even for the most advanced countries. Despite the influx of resources redeployed from law enforcement, the taxes might have to be high to cover the costs. In the USA, drug abuse costs due to lost productivity, damaged health and other costs (excluding law enforcement and crime) were estimated at US$70 billion in 1988.[36] The approximately US$20 billion dollars collected from alcohol taxes in 1995 by Federal and State governments[37] pays for only half the US$40 billion that alcohol abuse costs in direct health care, without counting other costs.[38] Nearly US$13 billion in cigarette taxes[39] is only about a sixth of the US$75 billion spent in direct health care costs directly attributable to tobacco,[40] without counting social security disability payments caused by cancer, heart disease etc.

For the legalizers to claim that increased health costs could be borne by re-allocating resources may be wishful thinking. Moreover, the effects of broader based drug consumption could have far reaching

effects on the social fabric – accidents at work, on the road and in the home would be more common, and suicides and deaths by overdoses would probably rise.

Crime, organized crime and violence

The legalization lobby is convinced that crime, violence and organized crime would be significantly reduced if drugs were legalized. There is no doubt that drug trafficking has permitted the criminal cartels to buy their way into power, political influence and judicial impunity. But, as discussed above, legalization would not remove the profits that have already been earned, merely jeopardize the future earning power of the lower cadres. Those whom legalization dispossessed would not simply give up and start being good law-abiding citizens but would probably look elswhere for a lucrative source of income, be it child pornography, trafficking in counterfeit currency, precious metals or body parts. The progressive integration of drug trafficking with other illegal networks indicates that the world's mafias are not resting on their narcotic laurels. Moreover, even under legalization, there would almost certainly be room for a narcotics black market, expecially if (a) certain categories were excluded, (b) not all drugs were legalized (such as crack or the so-called 'designer drugs'), or (c) if only some countries did so.

While it is true that the profit motive is the principal motor of the illicit drugs industry, it should be remembered that money laundering legislation incorporating measures to trace, freeze and confiscate criminal assets is in its infancy. Only a handful of industrialized western nations had systems in place by the end of the 1980s, and the rest are only slowly catching up. Even now, many outstanding issues remain unresolved - such as the compliance of off-shore centres with the 40 recommendations proposed by the Financial Action Task Force (FATF) (see Part 6.6), the reluctance of some countries to introduce appropriate legislation and relax bank secrecy, and the question of corporate criminal liability. With the marginalization of non-cooperating countries, and with the application of firm political will to implement existing legislation – not always demonstrated when powerful commercial and political interests are at stake – traffickers might have considerable difficulty in finding a safe haven for their ill-gotten gains.

Legalization would not necessarily end the narcotics black market.

Although it seems likely that a proportion of the predatory crimes committed to finance drug use would disappear, the crime/drugs relationship is far from clear. A review of North American studies suggests that a typical crime 'career' is well established prior to the onset of narcotic drug use and intensifies afterwards.[41] A study of New York youngsters who both used drugs and committed non-drug offences, indicated that delinquency was about as likely to begin before, as after the initial use of illicit drugs.[42] Rather than having a cause-and-effect relationship, the two forms of activity often seem to occur as products of similar external factors. Even under legalization, it has been suggested that a significant proportion of user-dealers, deprived of the income currently derived from participation in the black market, would be forced by economic hardship to continue criminal activities in order to survive.[43]

The complex association between drugs and violence is analysed by Paul Goldstein in Part 3, Box 3B. The legalizers believe that 'systemic' violence – which is inherent in a highly profitable illegal trade – would disappear under legalization. That it would be reduced is likely – Goldstein's 1988 analysis of cocaine-related homicides in New York City showed that most violence was the result of 'turf' wars among drug dealers, and that only about 2% could be attributed to direct pharmacological effects.[44] However, he suggests there may be a more complex association whereby individuals with a propensity for violence may be drawn to the drugs trade rather than any other, precisely because of the knowledge that violent instincts will find a sanctioned outlet. If drugs were legalized and violence were no longer a requisite for the trade they might transfer their 'services' elsewhere.

At the user level, proponents of legalization say the violence associated with acquisitive crimes would diminish once the need to rob and steal to buy drugs was removed. This might well be correct, but it would have to be balanced against the possible increase of violence of a pharmacological nature. Stimulant abuse has been associated with increased excitability and aggression which may turn into violence, as have the irritability and depressive state that typically follow a 'binge'.

The right to consume drugs?

The extent to which an individual's right to consume psychoactive drugs conflicts with the collective good was mentioned earlier. The health and social consequences on families, in the workplace and on society of drug abuse have been discussed in Part 3. These are actual, not potential harms, generated by a significant proportion of the drug-using population. The notion that the individual drug taker imposes no harm on society is not sustainable either on economic or on social grounds if the costs of that use are borne by society to the detriment of primary health care and social welfare. In nearly all countries alcoholics and those suffering from pulmonary disease from cigarette smoking have access to public health care, whose costs democratic society accepts as a collective burden. But if, under legalization, the victims of drug abuse of all kinds were to multiply, the tide of compassion might turn. Public health services might reject those who had chosen to act against their own best interests, leaving the rich to pay and the poor to lie in the gutter. Carried to its ultimate conclusion, insistence on the right to take drugs could be interpreted such that the community is absolved of responsibility for those who knowingly damage their own welfare. In many parts of the world the sector of the population over 60 years of age is set to double in the next 30 - 40 years.[45] Adding the costs of drug abuse to those of an aging, non-productive population might prove an intolerable burden. The result could be even greater devastation of many sectors of the world's population.

The regulation debate has been diverted from its proper course by overemphasis on its extremes.

Conclusions

Far from being a discussion of clear-cut policy options the regulation debate is, as Kleiman[46] has observed, more a question of choosing among problems than choosing among solutions. Any attempt to modify human behaviour is a quest for the elusive reconciliation between pragmatism and idealism - trying to legislate for an imperfect world without giving up the struggle for a better one.

The regulation debate has been diverted from its proper course by over-emphasis on its extremes, the 'zero tolerance' lobby on the one hand and the legalizers on the other. The legalizers may well have harmed the case for harm reduction by using it as a Trojan horse to gain recognition in the policy camp prior to launching the more extreme part of their campaign. Harm reduction need not be a stepping stone to legalization and is not necessarily incompatible with the maintenance of prohibition, within which, as rational discussion of the various options shows, there is room for diversity and compassion.

One of the principal risks with legalization is its irreversibility. It took thirty years from the identification of cigarettes with lung cancer to bring about a reversal in smoking habits among adults, and only then in industrialized countries, by means of sustained, costly, public awareness campaigns. Smoking is now increasing rapidly in developing countries, particularly amongst the young.[47] The tobacco experience should teach that even knowledge of harmful consequences does not necessarily prevent their occurrence and that drug habits acquired in youth are particularly difficult to dislodge.

The discussion of regulation has inevitably brought alcohol and tobacco into the heart of the debate and highlighted an apparent inconsistency whereby use of some dependence creating drugs is legal and of others is illegal. The cultural and historical justifications offered for this separation may not be

credible to the principal targets of today's anti-drug messages - the young. If it is accepted that education and prevention are the most effective, long-term strategies against drug abuse, then planning a drug control regime for the next century should tackle this problem and its implications for both the developing and the developed world.

One of the few unequivocal messages to emerge from the debate is the need for consensus. Consensus produced the three international drug Conventions and would be needed for any subsequent modification. International consensus and a broad consistency of approach are also indispensable for the maintenance of a coherent national policy - when one country's drug control regime differs radically from that of its neighbours, the country perceived as more tolerant may experience unwanted consequences in terms of increased trafficking and drug 'tourism'.

Regarding legalization, there seems to be little call so far for such a radical overturn of the current system. Where surveys or opinion polls have been carried out - in the USA and in Italy for example[48] - legalization has been rejected by the overwhelming majority of those questioned. Nonetheless a growing minority does seem to be seeking alternative methods of drug control, and may be willing to take limited risks of experimentation. Laws - and even the international Conventions - are not written in stone; they can be changed when the democratic will of nations so wishes it. But the legalizers must find better answers to the trickier questions before hearts and minds across the world will follow them.

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Part 6:

Strategies and programmes

INTRODUCTION

Part 5 described how drug policies evolve and how these are developed at international, regional, national and local level. This chapter moves from the conceptual aspects of policy making to its practical implementation and takes a close-up view of how interventions are applied 'on the ground'. Most initiatives are divided for practical purposes into 'demand side' and 'supply side' although, as was noted in Part 5, strategies must be integrated if the overall impact is to be effective. Both demand and supply side interventions are infinitely variable and depend on resources, priorities, and on the short-, medium- and long-term objectives that are set.

In the field of illicit drugs, demand side initiatives are those undertaken to prevent the onset of drug use, to help and encourage those who have already taken drugs to discontinue use and maintain abstinence, and to provide advice and treatment for problem or dependent users whereby the harm to the users themselves and to society can be limited. While this level of treatment also aims for the cessation of drug use and the full recovery of the dependent user, it implicitly recognizes that drug dependence can be a chronic, relapsing disorder.

Supply reduction strategies concentrate on measures to break the cycle of drug production from source to consumer; they include crop eradication, substitution and alternative development, the detection of illicit laboratories, the interdiction of drug consignments and of chemicals used in their manufacture within and across air, sea and land borders; market disruption strategies aimed at dismantling criminal organizations; and financial strategies such as asset-tracing and confiscation measures aimed at depriving the criminal of ill-gotten gains. Far more than demand-side interventions, which tend to be implemented at local or national level, the efficacy of supply reduction measures is critically dependent upon international cooperation.

6.1. PREVENTION: INFLUENCING KNOWLEDGE, ATTITUDE AND BEHAVIOUR

The purpose of drug abuse prevention is to communicate a message which discourages individuals who have not taken drugs from doing so. The most important elements to be considered in developing programmes are the *target group* to whom the message is aimed, the style and content of the *message* and the *vehicle* or medium used to communicate that message. Prevention programmes can be delivered in various different settings: by or within the school or educational environment, through the local community, by religious associations, sports or youth clubs, or in closed surroundings such as a prison.

Target groups

Some drug prevention programmes are aimed at the general public but most focus on specific sectors of the population such as children and young adults, ethnic minorities, pregnant women and prison inmates. The young are a particular focus, on the assumption that (a) young people are more vulnerable to the perceived attractions of drug taking, and (b) the longer that initiation into drug use can be delayed the less likely it is to begin or, if it does begin, to become compulsive (see Part 2). Even pre-school children are capable of absorbing simple information and so-called 'resistance skills' which have both drug and non-drug functions. These can include not accepting sweets or a car ride from strangers as well as refusing the offer of drugs.

Drug prevention and health promotion campaigns must take into account the social and cultural concerns of given target groups if they are to be effective. Ethnic minorities have different strengths and vulnerabilities from the rest of the population and these must be addressed through drug prevention messages which respect and reinforce the culture and its prevailing norms. A community-based approach may prove to be the most appropriate:

The Australian Aboriginal community has a well-developed oral history tradition that includes story telling, role playing and the fusion of myth and

fantasy with real life situations through drama. Drug and alcohol campaigns engage existing networks of aboriginal health workers on the grounds that they are familiar with the culture and ways of the community, have a commitment to its wellbeing, and are respected and recognized by its members. A typical campaign is preceded by a workshop held in the community and run by a team comprising a doctor, a nurse, a health educator, a communication consultant and a graphic artist. Two members of the workshop team are Aborigines. The participants in the workshop 'brainstorm' or have a wide-ranging discussion about the campaign, what its aims and objectives are and the salient points to be made. The responses are used by the communication consultant and the artist to develop a number of visual concepts which are presented the next day to the participants, who vote for what they consider to be the strongest presentations. The next session of the workshop decides on which specific activities the campaign should focus and how these can be integrated into the different social networks of the community. In this way the campaign can begin with the communal sense of ownership and pride in its uniqueness.[1]

The longer initiation into drug use can be delayed, the less likely it is to begin.

The importance of gender-based prevention programmes which focus on the difficulties many females encounter in seeking advice, information and treatment is gaining increasing acceptance around the world. In the Congo, for example, a 'mother and child foundation' has been set up to help young girls with drug problems, while in Zaire the media provide weekly awareness messages for women. A UNDCP initiative covering eight African countries incorporates a drug abuse prevention element into an existing women's health research and intervention project. With the use of an awareness-raising video, women are trained to recognize drug problems, to see them as a health issue and to understand where and how treatment is obtainable. The project also looks at positive and negative qualities of existing health service providers and seeks to reinforce the former.

The message

The purpose of a drug prevention message is simple: to prevent non-users from starting to consume drugs. The practice, however, is far from simple, and is a long way from being perfected in any country or setting. Drug prevention messages can inform, warn, shock or frighten; they can raise awareness of specific problems and offer ways of dealing with them. The effectiveness of a message may be judged by how it affects *knowledge, attitudes and behaviour*, and each requires a different type of message input.

According to a summary of prevention literature,[2] knowledge seems to be the most easily influenced of the three elements, followed to a much lesser degree by attitudes and behaviour. The knowledge input of a drug prevention message assumes that the target audience has a low or imperfect understanding of what drugs are, how they affect the body and what the attendant risks may be. The message tries to make good the deficit. This information may be reinforced by another set of facts concerning the illicit status of drugs and the possible legal consequences of taking them.

The vital factor for the knowledge input of a drug prevention message is the provision of clear, correct information. Exaggerating the dangerous qualities of drugs undermines the credibility both of the message and of the message giver, such that any other information on the same subject, or from the same source, may be disregarded if the recipient learns that he or she has been misled. Access to a set of accurate and objective drug facts should prevent the recourse to alternative sources of information and, if correctly delivered, can provide the basis on which a refusal to take drugs can be justified.

The attitudes and behaviour components take account of a natural human curiosity about drugs and the fact that there are certain times, in certain circumstances, in certain moods, when individuals may be tempted to take risks and experiment. The message inputs have to pinpoint these crucial moments and instil the skills and the willpower which, together with knowledge, will deflect the individuals from that course of action. This is much harder to deal with, for it involves an understanding of extremely complex human behaviour patterns in precise circumstances. If the message is even slightly off the mark, it may miss its target altogether.

A prevention campaign cannot be judged a success on the grounds of knowledge alone – higher levels of knowledge may, for obvious reasons, correspond to high levels of drug use, and knowledge is less important in determining drug use than are attitudes.[3] Moreover, the increase of knowledge alone appears to have little or no impact on attitudes or use of drugs, or future intentions concerning them.[4] Nor can success be claimed just because the message is remembered by large numbers of people; ultimately the only yardstick is whether the target audience responds to the message by a change in behaviour or by a change in attitude. Attitude is particularly important if the message is aimed at those who have never tried illicit drugs: in such circumstances, looking for a change in behaviour is not necessary – a successful campaign could be counted as one which had prompted a change in attitude, or in the way certain behaviour is regarded.

Most prevention messages contain a combination of positive value promotion with negative consequence warning. Once again, to be credible, the message needs to be as objective as possible. Nowadays, messages which contain only negative, 'gloom and doom' warnings depicting drug dealers and consumers as miserable dropouts languishing in sordid, self-inflicted misery are sometimes felt to be counterproductive – many young people know from direct experience, or from their circle of acquaintances, that drugs are not always incompatible with success and vitality, and may see illegality as superficially attractive.

Exaggerating the dangerous qualities of drugs undermines the credibility of the message.

Mobile prevention programme, India.
Photo: UNDCP

Having said this, the task of providing objective information about health effects and consequences is far from easy: drugs vary widely in their effects on different individuals, and what may give one person a headache may literally kill another. Explaining these differences and how they can arise are important elements of a drug prevention 'information pack'.

A more recent trend has been to move away from the purely negative image of the drug user towards a positive portrayal of the non-user as a healthier, happier, more attractive and successful individual who acknowledges the existence of a world in which drugs are readily available, but who is able to say, having weighed up the pros and cons, 'it simply isn't worth it'. Ideally, a drug prevention programme should not take the form of a one-way, didactic lesson, but should create a space in which discussion and an exchange of ideas can take place in a relaxed atmosphere. The young person who has carefully reflected on drug issues, been involved in role play or argument in a hypothetical 'drug offer' situation, perhaps adopting different viewpoints, is better able to reach a personal decision and believe in its validity even when under pressure. For this reason, helping people to build up self-esteem is often an integral part of such programmes.

The vehicle

The medium through which the drug prevention message is conveyed is as important as identifying the target group. In order to 'get through', messages need to be culturally appropriate and related directly to the concerns and perceptions of the target audience. For young people, a message

which incorporates music, fashion or even humour may be seen as more meaningful than a straightforward recitation of facts. Other factors that must be taken into consideration include educational and literacy levels and the accessibility of the message to the target audience – for example, launching a TV-based campaign is a waste of time if only a small minority of the target audience has a television; campaigns based on visual images will reach a wider audience than a dense textual message if literacy levels are low.

Both the medium and the message need to be culturally appropriate to the target group.

The identity of the message giver is important: ideally the campaign should be promoted by individuals who are respected by, or belong to, the same world as the target audience. One type of programme which has gained favour is the peer-led initiative whereby older students interact with younger age groups. Sometimes these simply involve listening and empathizing with problems, in others, specific guidance and counselling are given by specially trained peers with a direct line of referral to professional help. Peer involvement can also consist of acting out typical scenarios or imaginary exchanges to test drug refusal skills. What the older peers lack in adult experience may be compensated for by greater credibility in the eyes of the younger group.

Alternative Development, Thailand
Photo: UNDCP

Former drug users are often recruited in drug prevention campaigns, and this has proved useful in Hong Kong, where a register of volunteers exists who can be co-opted into prevention programmes. By deglamourizing the drug taking experience and, for example, in telling of their own misplaced confidence in being able to control a drug habit, former users may strike a chord with those who are tempted.

The police are frequently invited to run drug education programmes, particularly in schools. A programme called Drug Abuse Resistance Education (DARE) has been implemented all over the USA since its introduction in 1983. Police officers, who have been specially selected for their communications abilities, help to develop resistance skills in children in the last year of elementary school.

Public awareness/media campaigns

Public awareness campaigns, generally launched through the media, are a popular vehicle for drug prevention since they provide an opportunity to send a clear message – repeated at frequent intervals and thus likely to be remembered – to a mass audience through a culturally popular medium. On the other hand, there are disadvantages: the requirement to address a general audience of mixed cultural, educational and social background may cause a lack of focus; and the message is delivered without any interaction between the message giver and audience, thus without the possibility of direct feedback.[5]

Public awareness campaigns have been judged directly counterproductive if they rely extensively on shock tactics, particularly if directed at the young. Fear was used as the principal tool of a nationwide AIDS prevention campaign in the UK which involved all households receiving AIDS information leaflets. An evaluation reported an increase in knowledge and a change of attitudes – but of the wrong type. Sympathy for AIDS sufferers went down and no evidence of behaviour change emerged.[6] Another British media campaign run in the mid-1980s, with the slogan 'Heroin Screws You Up', rebounded when the supposedly unattractive posters of heroin addicts turned into a cult and were pinned to bedroom walls alongside film and pop music stars.

It is important not to overestimate the capacity of a mass media campaign – invariably based on a slogan and a few facts – to convey an understanding of complex problems. At the same time, the considerable power of a vehicle of mass communication can be harnessed to a positive and popular drive which, in raising initial awareness of these issues, can open the door to other interventions. Based on other means of communication, they can develop understanding, reinforce commitment, mobilize public opinion and ultimately, may prompt the desirable changes in knowledge, attitudes and behaviour.

Mass media campaigns have a limited capacity to tackle complex problems.

Many countries use public awareness campaigns as vehicles for drug prevention and health promotion messages: India's Directorate of Field Publicity has 257 offices throughout the country which raise awareness through posters in public places, car stickers and slogans on buses. These messages are reinforced by the distribution of audio-visual material in schools and other locations. The mass media have been used in drug prevention in Korea and in Japan; Bangladesh state-owned TV and radio broadcast anti-drug messages to the population at large through drama and discussion programmes.[7]

China has produced and distributed more than 10,000 copies of videos and shown them to an estimated 100 million people in the Yunnan, Shaanxi and other provinces. A 57-page handbook which reviews China's fight against drugs warns of the harm they have brought to the nation.[8] This utilizes China's defeat by Britain in the Opium Wars, and the subsequent forcing of China to import opium, to reinforce an image of drugs as an external threat originating in colonial oppression.

The media have sometimes been accused of oversimplification or of over-dramatization of drug issues, but in a fast-changing field, journalists may lack reliable reference sources against which to check their facts. To remedy this situation, the Swedish Council for Information on Alcohol and other Drugs (CAN) drew up ten fact sheets for journalists and arranged special seminars on themes such as "When does information become advertising?" Journalists were encouraged to avoid terms like 'fashionable' drug which risked portraying an aura of glamour. A course was held at Stockholm's College of Journalism and participants were encouraged to look on CAN as a continuing interlocutor and point of reference.[9]

Settings

One of the most common settings for a drug education programme is the school or other educational establishment. A wide range of drug prevention programmes have begun in West Africa[10]: Nigeria, Senegal, Mali, Ghana and Cameroon all have school drug programmes in which debates, essays and drawing competitions on drug themes are organized. Some of these involve 'youth to youth' peer education, telephone help lines and other forms of counselling. In India, school prevention programmes commonly involve debates, essay and poster competitions, and workshops with ex-dependent users. The Sri Lankan Ministry of Education and Higher Education runs programmes targeting students, teachers and parents to build up awareness and to build bridges for communication on drugs issues. The Zimbabwe Ministry of Education and Culture launched an 'education for living' syllabus in 1991, which involves drug education and programmed teaching approaches. Out-of-school community activities are also organized such as music, dance, fairs, talks, courses for

Second phase rehabilitation, Nam Khien, Lao PDR
Photo: UNDCP

teachers and demonstrations of first aid to intoxicated persons.

In many countries the focus of prevention has moved from being 'anti-drug' to 'pro-health': in Mauritius, drug education has been incorporated into health promotion through school-based health clubs. Teacher training and seminars are held for teachers, students, parents, social workers and health club leaders.

Many school prevention programmes expand the one-dimensional 'dangers of drugs' message and seek a greater integration both with the rest of the school curriculum and with the often competing influences of home, school and social life which characterize adolescent development. This approach, experimented in Britain by a group of researchers[11], uses the duration of an academic year to provide in-service training for staff, counselling for the broad school community, classroom-based seminars and workshops and awareness sessions for governers and parents. The programme examines a range of issues from social skills to decision-making and communication problems. Classroom discussions are held on matters like how friends are made and the qualities that make them attractive; attitudes to risk taking; and relationships with friends, teachers and family. The discussions move through, and around different kinds of behaviour such as alcohol, tobacco and drug use and sexual activities, making space for guidance and opinions to emerge in a natural process.

Recent work-place programmes promote health and quality of work environment.

The community

In some cases educational establishments may not provide the most conducive amosphere for drug prevention, especially if the target group straddles the school/adult age group or is likely to be unresponsive to conventional settings. 'Outreach services' constitute a range of activities with different models of establishing contact and prevention[12]: they literally 'reach out' to groups or to individuals who otherwise might not come forward to ask for help, such as people in marginal situations, minorities, youth at risk and persons with behavioural problems. Outreach services can be described as either 'detached' or 'peripatetic'. Detached work focuses particularly on individuals or groups in their own settings (on the streets, in pubs and clubs), whereas peripatetic work is generally carried out within the framework of an organization such as prison, hostel or youth club. Outreach services provide numerous types of service in prevention, harm reduction and treatment; they can intervene before a problem develops and act as a safety net for those who either drop out of treatment or relapse. The common element throughout the different types of service is their dependence on support from different components of the local community: NGOs in Cameroon, for example, provide outreach services for youth in and out of school, and have created bridges between businesses, communities and parent groups.

As noted above, the police play an important role as educators in community drug prevention; even within their conventional law enforcement capacity, they often exercise considerable discretional powers in neighbourhood policing by diverting young, or first time drug law offenders away from the criminal justice system, and into counselling or treatment. The 'circle of services' provided by the principal components of the community – civic authorities, medical services, schools, businesses, social services and police – is increasingly felt to be the preferred model of drug prevention.[13]

In-school awareness raising programme, Colombia
Photo: © Jon Spaull

Alternative activities

Some drug prevention programmes aim to alleviate the boredom that facilitates delinquency and illicit drug use by offering recreational, sporting and cultural alternatives. For example, the Australian Community Resource Worker (CRW) programme helps social planners and community leaders to anticipate drug and alcohol problems in the community and to develop preventive interventions; the city of Boston, USA, has tried to fight crack and other drug use with an emphasis on tackling typically urban problems such as loneliness and unemployment; and through an alliance called Boston Against Drugs, business and community groups work to provide educational and recreational programmes, decent affordable housing and job training.[14]

Drug testing has been opposed both on practical and moral grounds.

Prevention programmes in the workplace

A recent move towards locating comprehensive drug prevention programmes in the workplace, inspired by successful examples in Sweden, is seen as serving many functions: that of creating solidarity within a workforce and a sense of joint purpose between workforce and management; of enhancing wellbeing, performance and productivity, and as a means of wider communication through employees to family members and peer groups. The latest concept of workplace-based drug initiatives opts for early intervention and prevention in preference to reactive measures. It places the accent more on health promotion and environmental quality of work rather than on punitive measures.

A project funded by UNDCP and implemented by ILO and WHO[15] has been operating since 1992 in Egypt, Sri Lanka, Namibia, Poland and Mexico. It involves 250,000 participants in 43 companies in different sectors, including government, transportation, media, mining, hospitals, breweries, factories and chemical industries. The programme covers issues such as work environment, workers' education, occupational health and safety. Health awareness campaigns promote physical fitness, provide courses in stress management, mental health and personal development; age and gender factors are taken into account.

Under the terms of the project, each country develops a five-year project with a common core element, and others which are adapted to the different cultures, local concerns and experience of the participating nations. The core element uses the image of a traffic light: the majority of employees are in the 'green' zone and are not unduly vulnerable to drugs or alcohol abuse, but could benefit from more information about the risks and problems of substance abuse; the 'amber' zone includes those whose use of drugs and alcohol may be, or may become, harmful. For this group, early intervention, assistance and counselling are offered. Employees in the 'red' zone are those with dependence problems; treatment and rehabilitation services are provided.

In Phase 1, each enterprise prepares a draft policy on workplace prevention, incorporating links to community services for treatment and rehabilitation. Training of relevant personnel is provided. In Phase 2, awareness campaigns are developed together with information material. Emphasis is given to worker-management links, and to introducing the family into the circle of awareness.

A national project coordinator in each of the five countries works with the enterprises concerned to monitor progress, and to ensure the sustainability of the programme through an Alliance of Resource Managers against Drug Abuse (ARMADA).

Drug testing

Drug testing before, and during employment, forms an element of drug prevention in several countries and can be mandatory for certain occupations. Many countries routinely test their armed forces, while in Iran, all those who apply for official employment in ministries and government institutes, are tested. Drug testing has also been introduced in secondary schools and colleges in

Malaysia, Brunei Darussalam and into a number of independent boarding schools in Britain.[16] The procedure has been opposed on practical grounds – that tests are liable to be incorrectly implemented and/or incorrectly interpreted, that ultimate verification requires a very costly and sophisticated chemical analysis and that the consequences of such misapplication can be devastating for an employee erroneously stigmatized or dismissed – and on moral grounds, as a violation of personal privacy. Others feel that personal privacy considerations should be overridden by those of public interest, and believe in the value of testing as a means of deterrence, of estimating prevalence of drug and alcohol use among a cross-section of the community, and as a measure of compliance with workplace standards. An American Management Association survey conducted in 1992, based on data from 1,200 respondent firms, reported that the share of surveyed firms that tested for drugs had risen to 74.5% in January 1992 from 63% in January 1991. Business category was the most important factor in determining testing: manufacturing firms (87%) were more likely to test than service firms (64%); eighty three percent of transport companies tested compared to 21% of financial service providers tested. Only 7.3% of respondent firms tested all employees, the others used random or periodic testing of selected employees on suspicion, or for recruitment purposes.[17]

Primary prevention is the only known means of stopping the spread of the HIV virus.

Aids Prevention

Primary prevention is critical with regard to AIDS quite simply because it is currently the only known means of stopping the spread of the HIV virus. The urgency of prevention is such that in parts of Asia and Africa, the epidemic threatens to undermine the achievements in public health made over the past 60 years.[18] AIDS prevention is closely integrated with drug demand reduction programmes because of the link between injecting drug use and transmission of HIV (see Part 3.4). But national awareness campaigns in some of the worst affected regions are hampered by the difficulty of reaching scattered, rural populations and may be undermined by ignorance and superstition. It is generally believed that, in order to succeed, prevention campaigns should meet three criteria:

(1) The target population must believe that AIDS is a real threat;
(2) Specialized services must be available to encourage drug users to change their risky behaviours; and
(3) Social networks must exist, or be created, which reinforce the desired behavioural changes.[19]

Because of the broad spectrum of people at risk from AIDS, prevention has to be targeted at society at large as well as at special 'at risk' groups: this means the dissemination of information to discourage unsafe drug use and sexual practices, and to dispel the falsehoods and myths surrounding modes of transmission, such as that sharing syringes is 'safe' if the needle is clean. It includes general health promotion and the encouragement of a tolerant, supportive attitude towards AIDS victims so they become less marginalized. The drug component of an AIDS prevention programme must also vary according to location, culture and target group. It must seek to discourage drug injection among the uninitiated (both into drug use *and* into injecting practices), and persuade those who continue to inject to adopt a range of measures,

School children celebrating the International Day against Drug Abuse and Illicit Trafficking, 26 June 1996, Guinea-Bissau.
Photo: UNDCP

including not perpetuating the risk cycle by initiating new recruits (see Part 2, Box), and must indicate alternatives to the current risk behaviour. In this area particularly, information providers have to be pragmatic: while discouraging injection practices wherever possible, they cannot shy away from describing, for example, which injection techniques are more or less risky than others.

Because of the fear and stigma associated with AIDS, an important element of prevention is provided by the anonymity of a telephone help-line. Italy has run an AIDS help-line since 1987 which provides the following services:

- Information on problems relating to HIV infection;
- Information on nationwide diagnostic-clinical referral centres or other services appropriate to the caller's specific problem; and
- Telephone counselling to help the caller deal with his/her problem calmly, and to relieve anxiety.

Six lines, situated in the Italian National Institute of Health, are manned from Monday to Friday for five hours a day. The seven operators include physicians, psychologists and health care workers, plus an adminstrator who updates the list of referral centres. The help-line receives an average of 250 calls per year from drug users – this is less than 1% of the total, probably because it is targeted to the population in general.[20] A drug help-line called 'Drogatel' has also been operating since 1993 which functions from 9.00 am to midnight, seven days a week. In the first three months of operation, 8,600 calls were received.[21]

AIDS awareness-raising activities are conducted at all levels in India and often feature on the school curriculum. Mass media campaigns, billboards and TV reach a wide audience, while travelling theatre groups and puppet shows tour more isolated villages.[22] After some initial resistance to the encouragement of condom use, overcome by the rapid spread of HIV in the Yunnan province, China has now begun a five-year AIDS prevention programme with the help of WHO. Teachers and health workers give lectures backed up with leaflets and videos.[23] An AIDS prevention programme has also begun in Vietnam. One of the most comprehensive AIDS prevention programmes has been undertaken by Brazil, the South American country worst affected by the AIDS pandemic:[24]

The Brazilian National Programme singles out three target groups for particular attention – commercial sex workers, homosexuals and injecting drug users. Areas of special concern are (a) the large number of sexually active people who have casual contact with lower risk partners; and (b) the quality of laboratory services. The STDs/AIDS Programme introduced by the Ministry of Health[25] includes the following measures:

(i) Improving access of injecting drug users to public health services;
(ii) Needle and syringe exchange projects;
(iii) Projects for the medical and social rehabilitation of dependent drug users, including IDUs; and
(iv) Provision of free, comprehensive medical and hospital service for HIV/AIDS and STD sufferers.

Nationwide partnerships have been established with 27 states and 10 municipalities. In addition, contractual agreements provide for collaboration with NGOs, (increasingly active in this sphere); universities and international agencies such as UNDCP, UNDP, UNAIDS, the EU, other Latin American and Portuguese-speaking countries and the French government. Sustainability is built into the programme.

Farmers must be offered alternatives
Photo: UNDCP

Principal areas of cooperation are:

(a) Training: partnerships with universities to train a multidisciplinary team in management of HIV positivity, AIDS and STDs;

(b) Provision of treatment;

(c) Evaluation of services and integration of HIV/AIDS prevention and care, with long-term counselling to improve access and delivery of services; and

(d) Institutional development and surveillance – in particular:

- *Establishment of a national network for the isolation and characterization of HIV;*
- *Creation of a national network for monitoring antimicrobial resistance to STDs;*
- *Strengthening of a network of State referral laboratories; setting up a distance training scheme for laboratory staff and implementing a national proficiency testing system;*
- *Agreements with four international laboratories to conduct supplementary confirmatory testing and quality control;*
- *Carrying out direct and indirect cost estimates of AIDS;*
- *Surveillance for AIDS incidence and mortality, for HIV/TB co-infection; and*
- *Research and vaccine development and evaluation.*

Prevention: outcomes

Perhaps the greatest difficulty in evaluating prevention programmes is the impossibility of knowing what the situation might have been *in the absence* of the intervention. As was mentioned in Part 5, a 'non-event' might constitute a considerable success story, although tangible evidence may be hard to find. 'Non-events' are sometimes compared with 'events' in a neighbouring country or region, although caution is required here, since it will be rare that any two situations are directly comparable.

An AIDS prevention programme specifically targeted at IDUs was introduced to the city of Katmandu in Nepal in 1991. The services provided included education, counselling, primary health care and harm reduction methods such as the provision of bleach, condoms and needle/syringe exchanges. Street-based outreach was provided by staff nurses, social workers and former IDUs. Between 1991 and 1994 the average number of syringes shared in one week fell from 12.5 to 7.0. HIV/AIDS awareness among IDUs rose from 58% to 97%. The prevalence of HIV among IDUs did not increase and remained low (1.3%) compared to neighbouring countries in Asia.[26]

Evaluations of youth programmes suggest that the greatest chances of success come from a combination of different approaches to drug prevention. This unites the knowledge/attitude/behaviour approach to health promotion, self-esteem and resistance skills building.

School-based programmes have received mixed evaluations. A 1986 analysis of 143 adolescent drug prevention programmes in the USA found that peer-led initiatives were superior to others, and produced the only results that demonstrated a change towards reduced drug-using behaviour.[27] Australian research has suggested that programmes combining peer-led intervention, education and developmental skills yielded promising results.[28] A comprehensive analysis of school-based programmes in Scotland[29] generally endorsed these findings, but indicated that they had at best, a short-lived effect, again with most impact coming from peer-led programmes. One positive conclusion was the total lack of evidence to suggest that drug use had increased as a result of the programmes.

The real challenge of drug prevention – especially with young people – is the fine-tuning required to match the vehicle with the message, and with the target audience. The balance can all too easily be upset by a countervailing message or counter-culture, for example in the form of pro-drug messages given by popular cult figures, from pop songs or from a glamourization of drug use through, or by the media. Nowadays the curious can link in to drug-user networks through the Internet, and exchange information on patterns of use and a variety of chemical 'recipes' for domestic manufacture of synthetic drugs.

There seems to be no simple formula for 'getting it right', even though certain types of intervention give some grounds for optimism. No one setting, one vehicle or one message seems capable of combining all the necessary elements for a drug prevention programme, perhaps because individuals constantly change environment and are caught between conflicting impulses, moods and influences. Integrated prevention strategies which respond to the environmental circumstances in which drug use occurs seem to be as important as those which concentrate on the consequences[30], while reports from students suggest that truthfulness and credibility are all-important. Finally, the fact that the success of prevention programmes cannot always be proven does not justify discarding them – to give up on prevention work is effectively to abdicate responsibility for the welfare of future generations.

To give up on prevention work is to abdicate responsibility for the welfare of future generations.

6.2. TREATMENT AND REHABILITATION

Treating drug abuse goes far beyond the provision of a medical remedy for a physiological malfunction: in most cases, the drug ostensibly causing the problem is only one element of a complex array of problems needing attention.[31] Amongst these is the ambiguity inherent in dependency: the patient desires the cure but may resist the treatment, and needs different kinds of help to live without drugs. Many drug users take more than one drug, therefore a treatment programme must address the reasons for the drug problem, the medical complications relating to the interaction of one drug with others, and offer the therapy most appropriate to the individual and his/her circumstances, strengths and weaknesses. Sometimes the pathway into treatment will determine the kind of treatment that is available – that is, whether treatment is voluntary or compulsory, whether entry is via the social services, emergency room referral, the criminal justice system or prompted by problems in the workplace.

Treatment for drug abuse can take an infinite variety of forms, and is generally defined by *goals* and *modalities*. Treatment programmes vary according to short, medium or long term goals such as abstinence, an overall reduction of drug-related harm to the user and to society through lower morbidity and mortality rates, less risky sexual or injecting practices, a reduction in the level of criminal activities and the return to employment, family life or other responsibilities. Another way of defining a range of possible goals is to separate them into 'drug use' goals, 'social functioning' goals and 'productivity' goals; partial successes in each may have a cumulative effect.[32]

The modalities of treatment describe the type of treatment service and how it is delivered. Services can be provided on a residential or outpatient basis, through family doctors, hospitals or specialized drug abuse clinics. Compulsory treatment is likely to take place in residential care, whereas patients who go for treatment of their own free will can attend residential or outpatient services, depending on available resources and recommended treatment. Types of treatment include counselling and psychotherapy, behaviour therapy, pharmacotherapy; marital and family therapy, relapse prevention and traditional forms of treatment.

Detoxification

Abstinence-based treatment begins with detoxification, the process by which the drug is eliminated from the human organism, generally by natural metabolism. The sudden withdrawal of opiates is known as 'cold turkey' and is usually accompanied by extremely unpleasant side-effects and acute craving. Detoxification may be carried out on a more gradual basis, with substitute pharmaceuticals in the form of tranquillizers or methadone for opiate dependence, and antidepressants for cocaine and stimulants addiction.

Residential therapeutic communities

Therapeutic communities offer a range of treatment types for residents for periods varying from a few weeks, to months or even years. Detoxification is invariably a prerequisite for entry. Psychotherapy and behaviour therapy are provided on a group or individual basis – these help the patient to understand the reasons for the compulsive drug use and to find the strength to overcome it. (These services are also provided by outpatient services) Vocational

and occupational training are given particular emphasis in therapeutic communities, which often try to foster specific talents such as computer skills, rural/agricultural activities or artisanal work. Many communities have plots of agricultural land and workshops where individuals are helped to develop confidence and future employability in a protected environment. This type of community is felt to be particularly useful with young people who may benefit most from the supportive group environment, and who may never have acquired basic employment skills.

Methadone was introduced as an opiate substitute in 1965.

Substitute prescribing

The medical prescription of substitute drugs for dependence-producing ones has most commonly been associated with opiate addiction since the introduction of methadone in 1965, and it remains the most common form of treatment for heavily dependent opiate users in the developed world. It can be used for gradual withdrawal, or for long-term maintenance. An alternative to methadone is Levo-alpha-acetylmethadol (LAAM). The principal difference is that the opioid effect of LAAM is slower in onset and lasts for up to 72 hours compared to methadone, which lasts for up to 24 hours. Other drugs such as buprenorphine and clonidine have also been tried as heroin substitutes, although the former is not suitable for all patients and the latter can be given for short-term detoxification only. Methadone is more commonly prescribed for older, long-term users than for younger age groups for which drug-free treatment is usually preferred.[33]

Residential rehabilitation centre, Thailand.
Photo: United Nations

Within the modality of methadone-based treatment, programmes vary considerably: treatment availability throughout the EU ranges from 10 to 90 places per 100,000 population, and there is considerable variation in the duration for which substitute treatment is prescribed.[34] The Netherlands has steadily expanded its oral methadone programmes since the establishment in 1980 of a central methadone register to prevent multiple dispensing; methadone is available from police stations and from a range of outreach services including buses, which distribute from a number of known sites around the principal cities. In the mid-1990s there were about 35 national programmes serving about 12,000 clients – estimated to be some 60% of the opiate dependent population.[35] The average duration of treatment was two years. Maintenance of ten years or more has been known, and in itself is not thought to be medically unsafe.[36]

The two perceived advantages of methadone from a treatment perspective are its 24-hour duration and that it can be taken orally; nonetheless, this form of consumption is not always acceptable to dependent opiate users as it deprives them of the immediate 'rush' experienced by injection directly into the bloodstream. The recognition that severely dependent users do not come forward for treatment precisely for this reason, has prompted treatment services in a few countries to offer injectable heroin and methadone to patients under strictly controlled conditions. For historical reasons (see Part 5, the Regulation-Legalization Debate), Britain has a long tradition of opiate prescription; in March 1994 a total of 107 doctors working in public health treatment services were licenced to prescribe heroin, of whom 20 regularly did so. The total number of recipients at any one time was around 300. An alternative experiment with heroin cigarettes or 'reefers' had been started with the aim of reducing the HIV/hepatitis risks associated with injection, but this had not been evaluated. Oral methadone can be prescribed by family doctors or those working in specialized drug clinics on a daily, weekly or even longer basis. Evaluation of these services did not indicate any significant diversion to the illicit market thanks to the strict controls imposed.[37]

Another type of service offered to drug users is known as 'low threshold' treatment. This can mean one of two things: the prescription of methadone or of other substitute opiates in low doses, or else a flexible drug counselling and treatment service called low threshold, because it is easy to enter and easy to leave. This is often provided on an outreach basis and is seen as a means to bring drug users into contact with the health services in a 'user-friendly' fashion.

Switzerland has one of the highest per capita rates of heroin and cocaine use in Europe, with an estimated 30,000 individuals who have a regular, intensive and problematic use of heroin or cocaine, equivalent to about 1% of the general population at risk between the ages of 15 and 50.[38] Concerns about the spread of hepatitis and HIV, together with the high visibility and local concentration of open drug scenes in the Swiss cities of Bern and Zurich, resulted in a range of services described as low threshold, harm reduction programmes. In some cases these offered basic 'survival aids' such as meals, washing facilities and basic medical care, but they also included needle/syringe exchange facilities, methadone maintenance and the provision of supervised injection rooms.

In 1993, faced with continuing HIV and drug problems, the Swiss Federal Government gained approval for a controlled experiment with the prescription of injectable opiates for heavily dependent users for whom all other forms of treatment had failed. Strict conditions were placed on entry to the programme, which was extended in 1995 from 700 to 800 participants in eight cities. Initial evaluations suggested that health and social functioning had improved, but that alternative long-term solutions were needed to address the social, psychological and personal problems of the drug users.[39] A comprehensive evaluation was to be undertaken on termination of the project by the Swiss government and by WHO. Other governments were also considering pilot heroin prescribing projects for seriously dependent users with the aim of expanding them in the event of a positive evaluation.

Needle and syringe exchanges

Needle/syringe exchange services have increasingly gained acceptability in prevention programmes in the attempt to stem the spread of blood-borne diseases among injecting drug users, and through them to their sexual partners, and also because they reduce the number of discarded needles in places where they may cause harm. (This practice is now a criminal offence in several countries). Objections have been raised on the grounds that syringe/needle exchanges may actively encourage drug users to inject or to inject more frequently, or that, at the very least, they do not *discourage* injection. Evaluations are mixed in this regard (see below). In general, in the localities where syringe and needle exchanges have been introduced they are strongly supported by most health care professionals, not just for their perceived efficacy in reducing transmission of blood-borne diseases but because they are a means of bringing drug users into contact with health agencies. Although automatic exchange machines do operate in a number of countries, most schemes of this type involve at least a brief contact with drug users, who may ultimately be persuaded to take advantage of some form of counselling or treatment.

Syringe and needle exchanges are generally supported by health care professionals.

Voluntary/compulsory treatment

The range of treatment services offered to drug abusers around the world is extensive. Self-referred voluntary treatment is the most common form of treatment in Africa, while treatment can be compulsory in Japan, Malaysia, Brunei Dasussalam, Bangladesh and the USA. The Russian Federation

has a large treatment system, but types of service are limited and not much is known about geographical availability or the accessibility to specific population sectors.[40] Sweden has developed a comprehensive dual system of voluntary and compulsory treatment, and Norway, Finland, Denmark, China and Sri Lanka also make provisions for both forms. In Japan, dependent stimulant and opiate users undergo compulsory detoxification in hospital. Many countries have provision within the criminal justice system to divert drug dependent users from prison into treatment, and thus treatment is not actually compulsory, but failure to comply signifies the re-imposition of the prison sentence.

Prisons

Prevention and treatment of drug abuse in prisons and non-custodial alternatives for drug dependent offenders are gaining in importance and international attention. Until now, scarce resources and the prioritization of drug-abuse policies towards population groups deemed 'more deserving' have caused drug problems within the prison system to be neglected. However, the situation may prove to be explosive. The XI International AIDS Conference held in Vancouver in 1996 highlighted the vulnerability of prison inmates to HIV infection and recommended that more measures be taken to protect them. One researcher pointed out that there were six times as many deaths from AIDS in US jails as in the general adult population.[41] A study of volunteers in a male and a female prison in Sao Paolo, Brazil showed an overall rate of 17% seropositivity among the male volunteers and 25% among the female. Injecting drug use was reported by 19% of the men and 23% of the women.[42] It is generally assumed that more than 50% of Australian prisoners are serving sentences for drug related offences, of whom a high percentage are injecting drug users, and that prisoners who do inject are likely to share with more people and have less access to clean 'works' than the general population, thereby increasing the risks.[43]

Introducing AIDS prevention in prisons implies recognition of forbidden behaviour.

Any proposal to make injecting equipment and condoms available in prisons is particularly problematic in that it represents an implicit recognition of forbidden behaviour which many prison authorities, governments and public opinion find unacceptable, and which may be interpreted as encouraging drug use and promiscuous behaviour. Another major concern is that prisoners might use needles as weapons against each other or against prison staff – a particularly potent instrument if filled with infected blood. Some prisons, including the San Francisco jail system, have begun the distribution of condoms as part of HIV education, and pressure is being exerted by Australian and Canadian AIDS workers to allow the provision of sterile needles. A pilot project deemed successful has been carried out in a Swiss women's prison.[44]

Despite the trend towards referring dependent drug users to external treatment facilities, in many cases the severity of the crimes committed requires that significant numbers must remain in custody. In 1992, Downview prison in the UK became the first prison in the country to organize a full-scale drug prevention and treatment programme 'in house'. Run by a charity, the Rehabilitation of Addicted Prisoners Trust (RAPT), the treatment programme is based on a 12-step approach pioneered by the self-help group, Alcoholics Anonymous. Treatment lasts over eight weeks and involves eight meetings per week, four run by outsiders and four by the prisoners themelves. Counselling is given by ex-dependent users who may well also be ex-convicts. From 1994 onwards, prisoners could gain privileges if they moved to an area of the prison declared 'drug free', as long as they renounced drug use and voluntarily submitted to random drug testing. Results from the random testing dropped from 45% in January 1994 to 8% in July 1996, when the entire prison became nominally drug free. This contrasts with the average level of drug use in prisons which, since the introduction of mandatory drug testing in UK prisons in 1995, has been around 37%. Levels of violence also dropped to well below the national prison average.[45]

Traditional forms of treatment

In the majority of developing countries, specialized drug treatment provision is concentrated in the largest cities, while even the most basic medical services may be severely limited by a lack of resources. Native wisdom and indigenous healing practices are often the sole source of treatment for drug abuse, and prevention, treatment and rehabilitation efforts may be served by the same group of people. Traditional healing methods are described as "non-orthodox, therapeutic practices based on indigenous cultural traditions which operate outside official health care systems",[46] and are particularly widespread in Asia and in Africa. Ritual and symbolic procedures involve incantations, invocations and various forms of spiritual and physical purification; death-rebirth scenarios may be played out. Herbal emetics and laxatives are used to drain or purge the body of the addictive substances, followed by intake of, or bathing in, consecrated fluids and by massage and physiotherapy. Religious rites of confession, pledge and sacrifice are performed to signify the liberation of an individual from the scourge of addiction.

Mobile prevention outreach, India.
Photo: UNDCP

In Malaysia, Chinese Taoist practitioners and Hindu Ayurvedic healers offer residential treatment of from one to several weeks' duration. Drug-abuse treatment based on Islamic precepts is also available in Malaysia, and consists of internal purgation and external cleansing followed by spiritual-didactic counselling. Islamic religous leaders in the Arab world provide spiritual counselling within mosque grounds after detoxification has taken place. In Cairo and in Taif, Saudi Arabia, group therapy follows prayer sessions with joint worship and recitation of the holy scriptures.

A variety of treatment types is offered by medical colleges and hospitals in India, where in 1993 – 94 there were 123 counselling centres and 71 detoxification centres. Detoxification is usually done on a residential basis, followed by outpatient aftercare. Abstinence is encouraged but pharmacotherapy is provided. Self-help groups have been established in the cities by religious groups.[47] Ayurvedic medicine is officially recognized in India and Nepal and treats drug abuse with herbal remedies containing tranquillizing properties which are aimed at reducing thirst, stimulating appetite, and relaxing the muscles. Yoga is also used in India in pre- and post-detoxification phases.

Yoga and other traditional practices such as homeopathic medicine, acupuncture, and transcendental meditation have also been adapted by western practitioners. Sometimes eastern and western practices are combined, as in Hong Kong, where methadone maintenance is provided on a short-term basis, and traditional treatment is provided in Buddhist temples. Monks dispense herbal medicines, provide spiritual guidance and encourage meditation and religious vows of abstinence. Treatment is given in the temple grounds and is supported by voluntary participation and donations.[48] Temple-based healing practices are also used in Lao PDR and are held to be effective thanks to the prestige in which the Buddhist clergy is held.

Treatment 'camps' have become common in India, Sri Lanka and Lao PDR. They are set up in a school, a religious facility, or in a tent as part of an outreach activity by a multidisciplinary team under

Opium addict, Lao PDR.
Photo: UNDCP

the auspices of a hospital, and provide a service not normally available to rural communities. Community support is a vital ingredient. Health staff visit a number of villages, select a location and recruit appropriate staff. Camps last 10 – 15 days and involve a minimal cost of around US$2,000. Religious festivals and rituals serve to mobilize the community and reinforce the spiritual aspects. Medical services are used to assess health needs and relieve withdrawal symptoms.[49]

After four years of a UNDCP-funded alternative development project in the Palaveck village district in Lao PDR (see 6.3), and in response to requests from the villagers themselves, a UNDCP village-based opium detoxification and rehabilitation programme[50] was begun. Three separate groups of heavy opium-using volunteers participated between March 1994 and March 1995, involving a total of 56 villagers, of whom 11 were women, from six villages. (One was breast feeding and thus mother and baby were detoxified together). The duration of the opium habit ranged from 2 – 27 years.

Phase 1: a dependence survey was carried out by village headmen, villagers and opium users, then volunteers for the programme were registered and given a medical check-up. Meetings were held between the families of the volunteers and village anti-drug committee members. The programme was conceived and implemented as a community project, a form of social contract to sustain the participants in their efforts to become and remain drug-free. In return participants and their families agreed to pay back the cost of their treatment in the case of relapse.

Phase 2: A public anti-opium awareness campaign was launched which included school painting and essay competitions, women's group discussions, village elder discussions and radio broadcasts on anti-opium measures. Videos were shown and role play acting performed.

Phase 3: A treatment camp was set up on the outskirts of one of the villages to house the patients for a period of up to three weeks. In addition to the project staff, 11 village health workers and six village headmen participated. At a formal opening ceremony, village shamans or witch-doctor priests performed traditional rituals to rid the addicted individuals of the opium spirit. School children read out essays and women's group members took part in a debate – all with the aim of providing moral support for the ordeal to follow. The rules and regulations of the programme were read out and all was recorded for radio. The detoxification period lasted 10 days with at least six days rest and rehabilitation before patients returned to their families. Tincture of opium was used initially as replacement therapy for opium, and other pharmacological medication provided to relieve withdrawal symptoms and reduce anxiety. All the patients completed the detoxification with varying degrees of withdrawal distress. Most had regained their appetites by the fifth day and could begin light work such as basket weaving, embroidery or cleaning duties. By the time the third programme was underway, rehabilitated ex-users were helping in the heavier camp work such as carrying firewood and water.

The problems that occurred included the smuggling of opium into the camp, individuals leaving the camp for periods, some unruly behaviour and minor theft, but overall the programme was judged a success. Of the original group of 19, eighty percent were drug-free after almost two years; the success rates for the second and third groups were 60% and 50%, respectively.

Detoxification is only the beginning of the long struggle against drug dependence.

Participants in programme targeting opium addicts and their families, Lao PDR. Photo: UNDCP

Rehabilitation/aftercare

For the dependent user who wishes to remain drug-free, detoxification is only the beginning of a long, hard struggle against the props and people of the drug world. For the long-term, heavy drug user, sustained abstinence is the exception rather than the rule. Circles of friends, leisure, or work (for example selling drugs) may all have centred on the drug habit and may have been as important if not more so than the drug itself. Certain stimuli may trigger a relapse, and individuals need to be helped to resist and to overcome the urge to seek drugs. Some treatment therapies make patients relive or confront these circumstances again and again until, ideally, the stimuli no longer operate and the craving is overcome. Relapse prevention also depends on support networks. These may rely on spiritual/religious guidance, community groups or self-help groups with a common background of dependency.

While he/she is re-learning how to cope without drugs, the ex-addict may need help with other essential components of everyday living such as finding a job, somewhere to live and rebuilding family and friendship networks. Vocational training, family therapy and sheltered or 'halfway houses' can provide counselling, practical assistance and a degree of supervision during the recovery period, and can shore up willpower and morale before the final move back to independent living.

Outcomes – demand reduction

The success or failure of drug treatment programmes depends on many factors, both internal and external to the drug-dependent individual. For some, total abstinence is the most suitable course of treatment, for others a slow reduction in dosage accompanied by supportive psychotherapy is preferable. Some need the axe of punishment hanging over them; for others the prospect of a more stable family life is sufficient motivation. The first and indispensable element is individual motivation. The existence of a continuum of care also seems important: a survey conducted in Hong Kong over a three-year period showed self-help group members on average remained drug-free significantly longer following treatment, and recovered from their first relapse episodes more quickly than their counterparts in a control group without such support. Recovering addicts are encouraged to serve in voluntary service projects as well as in demand reduction programmes.[51] Compulsion under threat of prison sentence is a strong factor of compliance while the treatment programme lasts, but may not be sufficient in the long term.[52] There is no agreement as to whether outcome rates for compulsory treatment are significantly higher or lower than for voluntary treatment.

There have been many evaluations of methadone maintenance programmes in the USA, Australia and Europe. One of the most significant outcomes is a drop in criminality. An evaluation of US programmes showed a drop in the mean number of crime days per non-incarcerated year, from a range of 96 – 131 to that of 24 – 70 between the period of dependence prior to admission and the period of treatment.[53] A European evaluation noted that methadone maintenance therapy had "a real though not total efficiency to reduce illegal opiate abuse, criminality, morbidity and mortality risk among

Awareness campaign targeting the link between HIV transmission, sex and injecting drug use, Thailand. Photo: UNDCP

addicted people.[54] However, surveys of therapeutic communities and drug-free treatments have also been known to produce similarly positive outcomes.

Evaluations of needle/syringe exchanges have met with favour tinged with caution. A study of 50 drug injectors in Glasgow who attended a needle exchange, reported that most needle exchange attenders continued to engage in unsafe injecting practices.[55] An analysis of data from 14 different geographic areas in Asia, Europe, Australia and North America in which HIV incidence was either directly measured among exchange participants or could be estimated from HIV seroprevalence, plus data from two related studies concerning hepatitis, gave generally encouraging results: 14 of the 16 studies showed low rates of blood-borne viruses among exchange participants. In the two studies with apparently high rates of HIV incidence, potential causes included multiple risk factors among IDUs (high injection frequencies, high sexual risk behaviour, multiple social disadvantages) and policy restrictions regarding syringe/needle exchanges.[56] A study of 2,250 IDUs attending the New Haven exchange in the USA showed that, as a result of the programme, mean circulation time for syringes had declined from more than two weeks to less than three days. There was a concomitant decline in the percentages of syringes with evidence of use by HIV-infected injectors from an initial level of more than 65% to a new steady level of approximately 40%. Test results estimated a 33 – 100% decrease in new transmissions among clients.[57]

The slowing down of the rate of HIV transmission among injecting drug users in the Netherlands, the UK[58] and in Australia[59], where syringe and needle exchange schemes operate, indicates that risk behaviours are declining; however, it is not always clear what proportion of the decline is due to the provision of such schemes, or to an increased awareness of the dangers of sharing injecting equipment. It may also be the case that users have moved from injecting heroin to 'chasing the dragon' or to synthetic preparations taken by mouth. In countries such as Sweden, a similar reduction of the HIV transmission rate has taken place, although greater emphasis has been given to early identification of drug injectors and encouraging them into treatment than to providing syringe exchanges.

Though there has been little scientific evaluation, traditional therapies for drug abuse are generally felt to be as successful as 'official' western medicine, and in some cases, more so. With all such community-based prevention, positive factors derive from shared socio-cultural values between healer and patient; the holistic or integrated approach used; accessibility; affordability and the reinforcement of culturally acceptable images and symbols which stress the enhancement of positive values rather than the punishment of deviance. The negative aspects include the difficulty of supervision and the application of potentially harmful treatment methods.[60]

Overall, the factors which seem to give most hope of success are early intervention and duration of treatment: the sooner treatment can begin and the longer care is provided, the better seem to be the chances of a successful outcome. Other criteria for efficacy include physical and economic accessibility and, for counselling and for acute emergency cases, availability outside conventional working hours. Compatibility and quality of service delivery are equally important. Perhaps then, rather than ask "Does treatment work?", a more appropriate question might be "Which kinds of treatment achieve which goals when delivered by which kinds of practitioners?". There is no simple answer, except to say that under the 'right' circumstances, treatment can and does work.

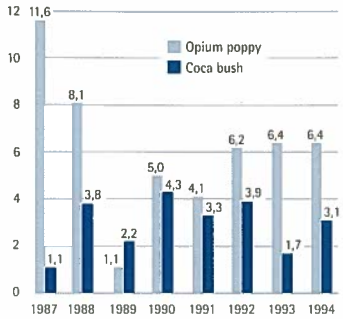
6.3 ERADICATION, SUBSTITUTION AND ALTERNATIVE DEVELOPMENT

Supply reduction strategies focus on the connections between supplier and consumer and between the criminal and illicit profits. The types of measure used depend upon the precise purpose of the strategy and point in the supply chain at which it is aimed. Three basic types of intervention employed to restrict the supply of plant-based drugs at source are *eradication, substitution* and *alternative development.*

Eradication[61] of illicitly cultivated crops can be done by mechanical destruction (slashing or uprooting); by burning; by applying chemical herbicides or by biological (including genetic) elimination. It can be either forced, or through compensatory schemes developed on the basis of payments per hectare eradicated. Forced eradication occurs more commonly when there is no tradition of growing the illicit crop in a given area, or if the crop has been re-introduced after compensatory measures have been implemented. Bolivia has implemented both forced and voluntary coca eradication, but both methods have met with problems: coca growers have resisted the withdrawal of a staple – and relatively stable – source of income, growers' unions have become a powerful lobby against government efforts to introduce forced eradication, and compensatory schemes have been difficult to implement. No coca bush census was conducted prior to Bolivia's 1988 law on voluntary compensated eradication, and since it is impossible

Eradication, Thailand.
Photo: UNDCP

Fig. 1: Estimated percentage of global cultivation eradicated, 1987–1994.



Source: Commission on Narcotic Drugs, Crops from which drugs are extracted and appropriate strategies for their reduction, Report of the Secretariat, United Nations Economic and Social Council, 1 March 1996 (E/CN. 7/1996/11).

to determine the age of a plant over two or three years of growth, the eligibility criteria of the law are difficult to apply.

Although testing of crop-specific, otherwise non-contaminating herbicides has been carried out, environmental concerns about this method remain, and chemical eradication is banned in Thailand, Bolivia and Peru. Mexico has used both mechanical and chemical techniques in extensive campaigns to eradicate opium poppy and cannabis cultivation. Overall, however, it is estimated that eradication has been applied to relatively low percentages of illicitly cultivated areas in recent years as Fig. 1 shows, with 6.4% of the total estimated global cultivation of opium poppy and 3.1% of coca eradicated in 1994.

In many parts of the world, eradication is complicated by the inaccessibility of cultivated areas and by the involvement of insurgent groups in the protection of plantations and in trafficking.

Alternative development[62] can be defined as a process to reduce, eliminate or prevent the production of illicit crops through specifically designed rural development measures. A central element in

many alternative development programmes is crop substitution, which involves replacing the illicit cultivation of crops with the licit cultivation of others. In this light, alternative development can be distinguished from crop eradication, for whereas the latter aims at little more than eliminating the illegal crops at hand, the former seeks to ensure that other sources of income generation are accessed by, and ingrained in, the local community. The reduction of rural poverty – particularly through sustainable natural resource management – is a typical aim in alternative development projects. In areas of extreme poverty, the illicit crop fulfills the basic need for cash income in notoriously cash-strapped, subsistence economies.

The link between illicit drug crops and socio-economic development first received serious attention around 1970, with crop substitution projects targeting opium poppy in northern Thailand. The methodology has evolved gradually into what is known as alternative development, a concept which encompasses a broader conception of development beyond the substitution of illicit crops.

Crop substitution projects were based on the premise that the elimination of the economic imperative to grow an illicit crop would, within a reasonable period of time, lead to elimination of the illicit cultivation within the targeted area. The activities would then spread to adjoining growing areas and eventually cover the entire zone of illicit cultivation. The areas for which this hypothesis was felt to be appropriate were primarily traditional growing areas where subsistence economies prevailed.

Alternative development programme.
Photo: UNDCP

The 1970s served as the testing period for this methodology. It became clear that various crops were feasible substitutes on agricultural grounds, but that the challenges posed by marketing, and by the ability of traffickers to adjust the price paid for opium, placed limits on the success of "crop substitution." Particular characteristics of opium poppy and coca further highlighted the dilemma facing rural farmers. For example, coca bush will grow on steeply sloping land in soil of sub-optimal quality; it can be harvested several times a year and requires little tending. Opium poppy is reasonably robust, as long as the growing areas are weeded regularly; opium can be stored for long periods, unlike perishable crops.

By the end of the decade the approach was broadened to what was called "integrated rural development." Efforts were aimed at improving the overall quality of life of the target population, by addressing not only income but also education, health, infrastructure and social services. The approach proved to be relatively successful in traditional growing areas in several Asian countries as the 1980s advanced, and served as the basis for the development of initial projects in the coca-producing areas of Latin America. It combined relatively heavy infrastructure investment with a wide range of other inputs, aiming in most general terms to "open up" these remote, under-developed areas of traditional cultivation and to promote their integration into the economic and social mainstream.

In the course of the 1980s, however, especially in Latin America, it became evident that cultivation could be introduced by traffickers into new, non-traditional areas to meet a growing market and to offset any gains made in the traditional area. A methodology based on high-cost investments in hard-core growing areas could not ultimately expect to cover all these new areas. Furthermore, attention would need to be given to the overall development of entire zones, so as to counter and ultimately prevent the spillover effect. In short, the narrower micro-economic approach was insufficient. Thus, alternative development today, while still centered on the substitution of illegal crop cultivation with other income generating activities, also recognizes the importance of off-farm income generating activities. More so than ever before, it is

Alternative development, Lao PDR.
Photos: UNDCP

recognized that national economic growth is a powerful influence on the parameters for success in alternative development. Today, greater importance is placed on the role of the producer countries in ensuring stable economic environments in which alternative income sources can be tapped.

The international community also has a key responsibility to ensure the necessary pre-conditions for successful alternative development. External support through coordinated and directed programming of development aid is of course a key factor that can establish a local market environment that is conducive to successful alternative development.

Certain general guidelines can be identified for specific project interventions. Alternative development projects should aim primarily at the structural factors which hinder integration of the concerned areas into the development process. Such projects seek to promote alternative economic activities which have long-term sustainability. The projects need also to support local groups and institutions which can help convince people not to grow drug crops. Strengthening of local government administration is also an important factor. Lastly, constant evaluation and analysis are required, in order to identify those intervention models which can be sustained and which should be replicated on a larger scale.

UNDCP's experience of alternative development programmes in the past suggests that their viability depends to a considerable extent on the Government's long term financial and political commitment to national integrated rural development and, in most cases, consistent enforcement of drug control legislation. Future alternative development projects will therefore need to involve active partnerships with governments to a greater extent than in the past, making a move away from the benefactor/recipient model that has been the basis for many previous programmes.

In view of recent experience, the inclusion of demand reduction components in alternative development programmes has also become standard practice. In many drug producing areas, there is a problem of local drug consumption; if nothing is done about illicit demand under such circumstances, it is more difficult to relieve the pressures which drive farmers to harvest illicit crops. The need for a balanced approach that recognizes the symbiotic nature of illicit supply and demand is nowhere more self-evident than in the context of alternative development.

With regard to the aim of reducing illicit drug supply, various alternative development initiatives have resulted in encouraging progress in recent years. Three in particular provide useful examples of how to adapt the technical complexities of alternative development programmes to the specific needs of the country and community at hand:

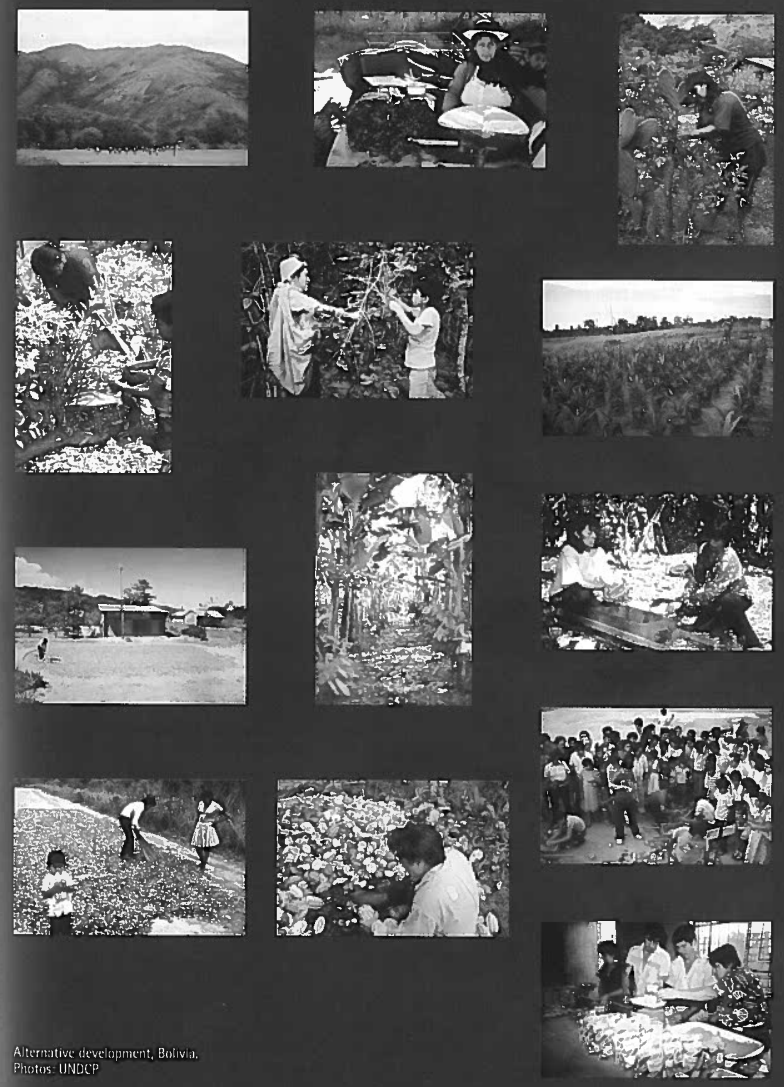
Funding must be on a shared basis and coordinated for purposes of sustainability.

Highland Integrated Rural Development Project, Lao PDR

This project, launched in 1989 with support from UNDCP, sought to gradually eliminate the cultivation of opium poppies in Lao PDR on the basis of viable socio-economic alternatives. The strategy consisted of three immediate objectives: open up other areas of the project zone, particularly in the highlands; deliver well-targeted agricultural and other economic development packages to reduce poppy cultivation; and assist villagers to improve the quality of their lives through (i) the development of a community health care system, and (ii) the fostering of community development activities designed to promote self-reliance.

Prior to the inception of this project, there were no bilateral or multilateral projects in Lao PDR aimed at the elimination of opium poppy cultivation. In effect, the project served four important functions. First, and most fundamentally, it addressed the problem of illicit opium production, and indeed, significant reductions in illicit crop cultivation were achieved: from more than 3.5 tons of opium before the start of the project to less than 100 kg in 1995.

Second, many important lessons for the successful implementation of future projects in Lao PDR were learned – a key aim of such so-called "pilot"



Alternative development, Bolivia.
Photos: UNDCP

projects, of which this was one. The complexities of alternative development and the many on-the-ground nuances of illicit crop cultivation, often require an initial learning phase so that the large-scale investments which follow are optimally cost-efficient. This particular project experimented during the pilot phase with different implementation methodologies in order to develop a successful approach replicable to other parts of the country.

Third, the project generated a great deal of interest from the indigenous Hmong people who live throughout the Lao PDR. This interest was fuelled by growing awareness of the range of improvements carried out in the project zone; it of course helped immensely that there was a consensus that legal avenues for economic development were preferable to an isolated life style based on illicit poppy cultivation.

Finally, and essential to the reduction in poppy cultivation, the project resulted in sustainable sources of income generation for the local communities. The physical improvements – three bridges and 160 kilometers of new road, irrigation facilities for lowland paddies, village health outposts, clean water systems, and eight primary schools – are noteworthy because they all contributed to enhancing the appeal and profitability of alternative income-generating activities. The project did not convince local farmers to give up their cultivation of drug crops through simple cash incentives; rather, it sought to make other, alternative crops and the cultivation thereof, more appealing and profitable into the future. It is no coincidence that, at the end of the project, commercial opium production had largely been eliminated.

Alternative development requires community participation, Viet Nam. Photo: UNDCP

Management of forestry resources in the tropics of Cochabamba, Bolivia

One crucial lesson learned from this project, which was begun in 1994, is that alternative development can have positive results, not only with regard to reductions in illicit drug production, but also with regard to a host of other local problems, including environmental deterioration. The project sought to reduce local farmers' reliance on illicit coca cultivation by restoring deforested areas through the establishment of income-generating, agro-forestry units. The initial phase of the project, which will be completed in1997, is widely recognized as one of the most successful alternative development initiatives in all of Latin America.

Over the past 20 years coca leaf production and subsistence agricultural practices have resulted in extensive deforestation in the Cochabamba Tropics, commonly known as the Chapare. The alternative development initiative in the Chapare aimed to help local communities to better manage existing agro-resources, to assist in the conservation of the region's fragile soils, and to develop a forestry industry which could be sustained both environmentally and financially into the long run.

During the life of the project, a number of noteworthy objectives were achieved. For example, nearly 50 agro-forestry demonstration sites were established, thus establishing an effective means to raise awareness of the profitability of agro-forestry systems for those involved in illicit coca cultivation. By end-1996, over 3,700 individuals were trained in various sectors of agro-forestry such as forest resource management. In addition, over 100,000 trees were planted, with 60 family and community nurseries also set in operation. Producer associations with rotating funds were also set up, thus ensuring a self-sustaining source of short-term finance for those wanting to get involved. In addition to these results, the project's strategy of decentralized implementation with a high level of farmer and community participation, proved highly effective.

Two additional important lessons can be learned from this project. First, in order for alternative development initiatives to be successful, a comprehensive view of possible requirements must be taken into account during the process of project

design and financing. Both short and long term needs must be anticipated; and sectorally, all necessary inputs must be available to ensure long term viability. Second, the project reinforced the view that community involvement is an essential input into effective project design and implementation; no one knows better than those in the community about what alternative crops are in demand and how best to ensure their marketability.

Dir District Development, Pakistan

Much of the opium produced in Pakistan originates in the Dir District of the North West Frontier Province. This project, which is currently in its second phase after an initial phase which lasted from 1985 – 1994, aims to improve the economic and social environment of the Dir District in support of the government's phased programme of poppy eradication. The first phase of the project was marked by various difficulties not least of which was the resistance shown by community leaders in accepting and assisting the project's implementation. In fact, until the early 1990s, poppy cultivation in Dir proved extremely difficult to reduce, due in part to three factors: weak enforcement of a government ban on poppy cultivation; insufficient input from beneficiaries on project design; and, poor access to the main poppy growing valleys, a problem which prevented the implementation of much-needed development activities.

Photo: UNDCP

Nonetheless, in the final years of the first phase, notable reductions in poppy cultivation were achieved. At least three factors contributed to progress, including: increased awareness of local communities of the benefits which would accrue from active cooperation; relatedly, increased access into the main poppy growing areas of project-funded development activities; and, increased enforcement of the government ban on illicit cultivation.

The crucial lesson learned thus far is that inasmuch as there may be an imminent need to reduce illicit crop cultivation, the alternatives require time and patience. The early years of the project resulted in the essential infrastructural foundation on which recent progress has been achieved. Particularly since 1993, a steep and sustained decline in poppy cultivation has taken place. Much of this progress can be seen as the fruition of infrastructural investments such as road development and improvement, irrigation, and the agricultural diversification. It should be noted, however, that recent progress has been due not only to improved infrastructure, but also to factors such as increased law enforcement, the fall in opium prices due to overharvesting and relatedly, the relatively positive pricing trends of alternative crops. The level of opium poppy cultivation in the 1995 – 1996 season was 75% lower than that in the 1994 – 1995 season.

Henceforth, one of the primary objectives of the Dir project is to involve the local community in the identification, planning and implementation of particular development activities. Efforts have been taken to explore means by which future decisions on the management of infrastructure provided through the project can be taken by the local communities.

6.4. PREVENTION OF MANUFACTURE/ DIVERSION

The process of manufacturing drugs from raw materials and chemical substances can be carried on in a wide variety of locations from jungle laboratory to suburban kitchen. Several stages may be involved, with simple transformation at raw material sites

followed by trafficking to countries of main manufacture. Enforcement actions, such as raids on clandestine laboratories, are an important element of supply reduction, and can be effective in choking bottlenecks in the distribution process.

A key element of supply reduction, however, is to prevent the diversion of narcotic drugs, psychotropic substances and precursor chemicals from the licit to the illicit sector – this is among the principal aims of the three international drug Conventions (see Part 5). From the beginning of the Century, the various international drug control treaties focussed on limiting the production, manufacture and use of narcotic drugs, and, since 1971, of psychotropic substances, to medical and scientific purposes. This was done by developing national and international control systems to prevent the diversion of these drugs from licit to illicit channels. Depending on the specific drug, and the degree to which the required control measures were implemented by governments, this system has proved to be effective in preventing diversion. The displacement effect of this has meant that traffickers have turned to clandestine manufacture for the drugs. Such a manufacturing process usually requires a variety of chemicals (precursors) with otherwise widespread legitimate uses. The diversion of these chemicals is still not entirely prevented although the control regime, as set forth in article 12 of the 1988 Convention, is beginning to show its first positive results.

Preventing diversion from the licit sector is a key element in supply reduction.

The three international Conventions impose mandatory reporting requirements on the States party to them, and this enables INCB to monitor national licit requirements and stocks and to collect and analyse statistics on global manufacture and trade. Substances are categorized or 'scheduled' according to their therapeutic usefulness and liability to abuse, and are controlled accordingly. However the problem of preventing diversion has become ever more complex as the number and diversity of substances under international control have risen. For example, between 1971, when the Convention on Psychotropic Drugs came into force, and 1995, the sedative-hypnotic and tranquillizer categories under international control increased four-fold, while taken together, the number of scheduled stimulants, anorectics and ecstasy group drugs increased nearly five-fold.[63]

The benefit to risk ratio, or the balance between making drugs available for medical and scientific purposes and preventing their diversion, is finely balanced. Even when control systems are in place there almost inevitably exists a 'grey area' where misuse of prescribed drugs can occur, particularly of drugs commonly prescribed for depression, anxiety or insomnia. It is reported that eleven percent of all French adults take psychoactive medicines,[64] and that, in the United States of America, 3 – 6% of school age children require medication for Attention Deficit Disorder (see Part 1, Box 1B). Overprescription of anorectics has become an increasing problem in developing countries. In addition to lax prescribing practices, diversion also occurs through forgery or theft of prescription pads and thefts of drugs from pharmacies, hospitals and other storage locations.

With the exception of cannabis, the manufacture of narcotic drugs and psychotropic substances depends upon the availability of certain chemicals, solvents and acids. States party to the 1988 Convention are obliged to take measures to monitor trade in 22 substances commonly used in illicit manufacture, and to report any suspicious transactions involving them to the competent authorities. It is recommended that equipment liable to be used in illicit manufacture should also be monitored. The substances are divided into two Tables: Table I precursors have few available substitutes, few licit uses and few licit transactions. Table II precursors have many substitutes, many licit uses in industry and thus a high volume of licit transactions. This division allows for a more focused control of the substances concerned and minimal disruption for the majority of honest, licit traders. However, controls are hampered by the fact that a substance may well have a 'pre-precursor' which is similar to the controlled precursor, but different enough to elude controls. Moreover, some non-controlled substances may be used for illicit

manufacture in a specific region but not elsewhere. In such instances countries can apply supplementary controls. Several regional organizations in Europe, Latin America and Asia support their Convention obligations with measures targeted at the particular substances which may be produced in or transit their area. Individual countries, such as Belgium and Germany, apply a voluntary control system on substances from which the 22 listed chemicals can be manufactured. The successful application of control measures is illustrated by a case study from Germany.[65]

In December 1992, a consignment of 11 million MDA tablets in 63 wooden boxes was seized at Frankfurt airport. It had been flown from Riga, in the Baltic state of Latvia, and was en route to the Netherlands and Nepal. According to the official paperwork, which seemed to be in order, the boxes contained the common cold remedy 'Remantadin'. If the German criminal police, the Bundeskriminalamt, *had not been warned in advance and merely carried out a routine check, there was nothing about the consignment which would have aroused suspicion – the contents appeared to be as listed, the Latvian pharmaceutical company existed and was indeed a producer of the cold remedy. Had the cargo reached the street, the criminals would have netted some 500 million DM.*

The investigation had begun some weeks earlier when two individuals representing a small chemical company, one Dutch and the other Slovak, ordered one tonne of the chemical benzylcyanide *from a Belgian supplier. Benzylcyanide is not under*

UNDCP Laboratory training.
Photo: UNDCP

international control but is known to be a precursor of another substance, P2P, also known as BMK, controlled under Table I of the 1988 Convention and used in the manufacture of amphetamine and methamphetamine. Because the amount was so large the Belgian supplier was forced to turn to a German chemical firm to meet the ordered requirement, but simultaneously reported the request as suspicious to the Belgian police. Likewise observant of the voluntary national control system, the German company in turn reported its suspicion to the Bundeskriminalamt. *This launched the investigation known as 'Operation Happy'.*

As one of the two individuals who had placed the order in Belgium was a Slovak, the German police contacted the newly-formed Antidrugs Brigade in Bratislava, whose cooperation would prove invaluable. It transpired that three employees of a legal chemical manufacturing company in Bratislava were working after hours and at weekends to produce BMK and also PMK (3, 4-methylenedioxy-P2P), the corresponding precursor of ecstasy, a group of drugs which includes MDA and MDMA. They were working for the Slovak who had placed the original order in Belgium. Quantities of BMK manufactured in Slovakia were also being smuggled into Belgium under a false name. The movements of the three chemists were watched. They and the Slovak head of the gang made several visits to Riga to a pharmaceutical company, taking with them supplies of the chemicals manufactured in Bratislava, thereby indicating that Bratislava was the starting point for the Riga company's MDA manufacture.

When the Bundeskriminalamt *learned about the consignment to Frankfurt it was discovered that the real consignee was the Dutch national who, with the Slovak, had placed the original order in Belgium. After the consignment had been seized in Frankfurt, officers from the* Bundeskriminalamt *flew to Riga and confronted Latvian police with proof that the Riga pharmaceutical company director, his deputy and the chief chemist had been bribed to cooperate by a band of Dutch and Slovak criminals. Search warrants were obtained for the factory. Large quantities of MDA tablets were found carelessly stored and scattered around the*

factory, since the majority of workers believed they were producing a medicine for common cold. In a storage area of the factory, one million tablets were found packaged ready for delivery, but this had remainded in storage, it later transpired, because the director and his deputy had demanded a further bribe before releasing the shipment. In addition to MDA, the precursor PMK was also being produced there, as supplies from Bratislava were not sufficient. Supplies of another precursor, isosafrol, had been imported from France where the order had not raised suspicions on the grounds that it had been placed by a pharmaceutical company. Drums containing 500 kg of PMK were standing in the factory. In the director's office all the paper work relating to the front company set up by the Dutch and Slovak ringleaders was found.

Consequences
In the weeks following discovery of the shipment there was a sharp decline in the availability of MDA on the UK market, and it subsided altogether a few months later. Most of the organizers were arrested and brought to justice in their respective home countries, but because of differing legal systems between Belgium and the Netherlands, and because of the delay in obtaining evidence through commissions rogatoires *(official requests for judicial aid) the Dutch ringleader, who was resident in Belgium, had to be released. He was arrested two years later for reasons unconnected to the case, and in the meantime, attempts to try him for MDA smuggling were continuing.*

Conclusions
(i) This case reinforces the long-held belief that legally operating companies must be monitored and that focusing on clandestine drug laboratories is not sufficient to prevent the flow of drugs;
(ii) The control system is imperfect: professional chemists were able to bypass the law by substituting an uncontrolled substance for a controlled one;
(iii) The existence of a monitoring system for tabletting machines (as recommended by the 1988 Convention) would have facilitated the investigation – in the Riga factory, sophisticated machinery (manufactured in Germany) was used for the MDA, whereas old-fashioned equipment was used in the legal manufacture;
(iv) International cooperation is indispensable, but legal incompatabilities, even between two closely linked countries such as Belgium and the Netherlands, can allow criminals to walk free.

6.5. PREVENTING TRAFFICKING BY LAND, SEA AND AIR

Anti-trafficking strategies are aimed at disrupting organizational structures and operations. One way of looking at these initiatives is to separate them into two types: 'top down' initiatives, which concentrate on disrupting the top echelons of national and international trafficking by going for the 'king pins', and 'bottom up' efforts which aim at disrupting the connections between supplier and consumer at the retail or street level. Working from the top down *and* from the bottom up are essential for dealing with most of today's drug law enforcement problems. If successful, the 'top down' approach creates a sense of vulnerability at the summit of the organization; keeps criminal leaders on the run; and creates uncertainty and discontinuity of operations as well as weakening morale throughout the organization. Targeting communications and financial structures are key elements of a 'top down' policy.

Working from the top down and from the bottom up are essential to drug law enforcement.

'Bottom up', or low-level enforcement can be thought of as increasing the risks when buyers and sellers make connections; its prime objective is to increase the search time and the financial cost of drugs to the consumer, and to deter both buyers and sellers from entering the market. It is an approach which can also lead upwards to identification of higher-level operatives. Tactics include street sweeps, raids on homes, clubs and other enclosed premises where drugs may be traded, street market crackdowns, and 'buy-bust' or 'sell-bust' operations. These involve an undercover police officer masquerading as either a buyer or seller of drugs; arrests are made after the deal is done. Not all countries have the option of carrying out 'buy- and sell-bust' operations, since legal or constitutional impediments may prevent law enforcement officers from participating in a crime.

'Bottom up' tactics may focus on a specific drug, a specific location or a specific distribution network. Alternatively they may focus on deterring the user by exercising the law with the maximum severity when formerly some discretion might have been applied. They may be successful as a general deterrent and remove criminals from the streets, but they may also have unwanted consequences such as a displacement of the market elsewhere, or an outbreak of violence until such time as control of the local market is re-established.

Certain techniques, such as undercover operations and the infiltration of drug distribution or money laundering networks, are widely used at all levels of law enforcement, as are surveillance, and the use of informers. Informers are an indispensable source of information for drug investigators, but they require delicate handling. If they testify in court as witnesses then their careers as informers are finished, their lives are in danger and they and their families require protection, perhaps for the rest of their lives. If their identity remains confidential, they do not give evidence in court and the judicial case may be weakened.

Interdiction
The interdiction of drug consignments as they are smuggled within and across borders is a formidable task; interception rates vary widely between regions and for different drugs; however estimated global interception rates are around 10 – 15% for heroin and 30% for cocaine in recent years.[66] The rapid growth of trafficking in synthetic drugs, which are usually produced and distributed within, rather than across regions, (see Part 1, Box 1B) has augmented the problems facing law enforcement. However it cannot be assumed that frontiers always represent an obstacle to traffickers. Political tensions, incompatibilities between legal systems concerning extradition or the transfer of evidence, delays in processing requests for judicial assistance, agency rivalries and language problems all work in favour of the criminal and against the slower, bureaucratic mechanisms of international cooperation. The geographical terrain covered by drug distribution networks cannot be kept under constant surveillance, while the wealth of the drug trafficking organizations is such that all around the world, corruption and intimidation permit shipments to escape customs and police controls. Moreover, the reduction of international trade restrictions, together with the ever-increasing volume of legal goods traded, mean that detecting illicit cargo is almost impossible without prior intelligence. Increasing the likelihood of detection and prosecution can reduce the number of potential traffickers who perceive the reward to be greater than the risk, and for this reason, intelligence must be considered one of the most valuable tools for deterring criminal activities.

The World Customs Organization (WCO), formerly the Customs Cooperation Council (see also Part 5. 6) has had anti-trafficking initiatives in place for many years and makes extensive use of legal cooperation instruments such as MOUs with commercial airlines, companies in the chemical industry, freight insurance companies and commercial haulage and carrier companies. The need for defensive action became more urgent as the preference of traffickers for moving large consignments through commercial channels grew: whereas several years ago, around 8% of cocaine was seized in commercial cargo, the figure had risen to 43% in 1994, and trafficking organizations were purchasing transport companies and building custom-made vehicles with the explicit purpose of hiding drug consignments.[67] WCO's overall aim is to make life as difficult as possible for criminals, but unlike law enforcement agencies, its objective is to challenge the processes, not the criminals, through which illicit goods are traded.[68] The 1991 Carrier Cooperation Initiative, introduced by WCO, is a vehicle for the exchange of information and intelligence between WCO and the industry or company

Detecting illicit cargo is almost impossible without prior intelligence.

concerned, and aims to enhance cooperation between customs authorities, private commercial carriers and the international trading community. So-called 'supercarrier' procedures are implemented when either the sender, consignee or the consignment itself is considered to be 'high risk'. In 1994 there were over 200 signatories to the Carrier Initiative and 27 to the 'supercarrier' programme, including several major airlines. The 'supercarrier' signatories are obliged to submit written standard operating procedures in order to facilitate the detection of irregularities. If drugs are discovered, signatories receive a report which enables them to analyse how security was breached.

The US Customs Service uses an 'Automatic Targeting System' based on expert weighted rules, according to the type of goods and the source or destination country. A high number of points would mean a high risk consignment to be carefully checked. Free trade zones are considered at particularly 'high risk' areas and for this reason come under close examination. Certain industries in certain locations are targeted, or certain localities whatever goods are being sent or received. At so-called 'gateway cities' to the principal continents, such as Rotterdam, Miami, Lagos, Hong Kong and São Paolo, goods leaving and arriving are carefully monitored.

Law enforcement agencies have a wide array of detection gadgetry available to them in the form of audio and visual surveillance equipment, satellite imagery for surveying inaccessible terrain for possible illicit crop cultivation, state-of-the-art computers and communication equipment. The principal drawback is that traffickers appear to have equally sophisticated, if not more highly developed tools at their disposal.[69] Among the high-tech gadgetry used by customs officials to detect concealed drug consignments are low-energy X-ray systems (introduced in some countries with UNDCP assistance), hand-held density metres, and mass spectrographic analysis, whereby samples of air are drawn from vehicles or containers into fixed or hand-held machines which detect the vapour and dust particles emitted by drugs.

Cocaine seizure.
Photo courtesy: ©HM Customs and Excise

Despite the development of ever-more sophisticated techniques, the reliable nose of a sniffer dog remains one of the most effective and widely used means of drug detection. Dogs can detect explosives, heroin, cocaine, cannabis and amphetamine, and are not fooled by masking odours such as mothballs, onions, perfumes and spices. Their main limitation is that their sense of smell can become fatigued.[70]

Controlled deliveries

The law enforcement technique of controlled deliveries has become an increasingly common method of drug interdiction. It is used when investigating authorities discover the whereabouts of consignments of drugs or of precursor chemicals (occasionally also of cash) which are being conveyed through legal commercial channels, and decide, together with law enforcement agencies in relevant countries, to allow the consignments to proceed under surveillance to their destination. Ideally, the technique leads to the identification and arrest not only of the transporter, who may be a relatively minor figure, but of other, possibly more important members of the trafficking gang. Among the obstacles to a more widespread application of this method, which has proved extremely effective, are the legal or constitutional requirements in some countries to intervene as soon as a crime has been notified. Other areas of concern are a lack of technical capacity on the part of law enforcement authorities, doubts as to the effective destruction of seized drugs, the possibilities for corruption, and problems of agency or national rivalry, since a delayed seizure means that the 'glory' goes to the authorities in the final destination.

UNDCP Law Enforcement Assistance

The 1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (see Part 5.3) contains the principal provisions necessary to combat international drug trafficking. Among its strongest recommendations are measures to prevent money laundering, to prevent the diversion of precursor chemicals, to improve international judicial cooperation and to introduce the technique of controlled deliveries. To facilitate the implementation of the Convention, UNDCP provides technical assistance and a range of advisory services to governments. Law enforcement advisers in Thailand and in Pakistan have promoted law enforcement betwen agencies in their respective sub-regions in the form of cross-border cooperation, inspection measures, interagency coordination, exchange of information and intelligence, joint operations and assistance in drug law enforcement training. In 1995 for example, UNDCP monitored, administered and provided expertise for 39 technical assistance projects in law enforcement, particularly in Africa, Asia, Central and Eastern Europe and the Baltic States. UNDCP convenes meetings of a working group on maritime cooperation to strengthen efforts to combat drug trafficking by sea, and convenes regional annual meetings of the heads of national drug law enforcement agencies.

In 1995 UNDCP ran 39 technical assistance projects in law enforcement.

Regional law enforcement assistance provided by UNDCP has contributed to the establishment of Regional Intelligence Liaison Offices (RILOs) in East/Central Europe; East/Southern Africa, North Africa, Asia and the Pacific and South and Central America. The RILOs, set up with the collaboration of Interpol and the World Customs Organization (See Part 5.6) help law enforcement agencies in their respective regions to enhance their communications and analysis capabilities. The project provides equipment, staff and training for national customs intelligence units linked to a central regional office, which is in turn linked to WCO's headquarters in Brussels. Exchanges of information and intelligence concern :

(a) Emerging trends in trafficking;
(b) Modus operandi *of trafficking;*
(c) Significant cases;
(d) Means and methods of concealment;
(e) Suspect consignments and suspect passengers;
(f) Warnings and tip-offs requiring urgent circulation;
(g) Controlled deliveries;
(h) Monitoring and follow up of precursor chemical shipments;
(i) Control of cross-border movements of currencies and valuable goods linked to money laundering activities; and,
(j) National intelligence and information reports.

Although delays have been caused by language problems and technical difficulties, evaluations of this type of law enforcement show that significant increases in recorded seizures have indeed occurred.

Inadequate laboratory facilities and lack of training may make it difficult for law enforcement agencies in developing countries to analyse drug seizures. In 1995, UNDCP provided training in analytical methods for identifying and analysing seized drugs and biological specimens for 21 analysts from 16 countries, and provided training for laboratory personnel in China and in Colombia. Specialized technical manuals were produced and distributed. A scheme was also implemented to improve the testing of drugs in national laboratories in developing countries, enabling them to apply internationally accepted standards and thus encouraging harmonizing in the area of seized drug testing.

6.6. FINANCIAL STRATEGIES

Anti-corruption measures

Corruption is an important weapon in the armoury of organized crime and drug trafficking organizations, although it is frequently exercised independently (See Part 4, Box 4C). The borderline between paying 'commission' for services rendered and corruption is often blurred; many countries do not punish business executives who bribe foreign officials to be able to operate without hindrance, and in some instances these payoffs have even been tax

deductible. Preventive strategies against corruption have been introduced at national and international levels. Anti-corruption recommendations were adopted by the Eighth United Nations Congress on the Prevention of Crime and the Treatment of Offenders in 1990; special anti-corruption commissions have been set up in Hong Kong and in New South Wales, Australia. Codes of conduct have been elaborated and an increasing number of countries are applying them. A special commission of the Organization for Economic Cooperation and Development (OECD) has drawn up recommendations dealing with international corruption with a view to harmonizing the laws of different countries, and this is in line with the efforts of other institutions such as the Council of Europe and the International Chamber of Commerce, which have advocated the adoption of international treaties or conventions as crucial instruments in the fight against corruption.[71]

The borderline between paying 'commission' and corruption is often blurred.

Money laundering

Money laundering, its methods and consequences were discussed at length in Part 4. Depriving criminal organizations of their assets is held to be among the most effective strategies for disrupting criminal activities such as drug trafficking, which are driven primarily by the profit motive. Action at international level began in 1988 with two important initiatives. The **Basle Committee on Banking Regulations and Supervisory Practices**, comprising representatives of the central banks and supervisory authorities of 12 countries (Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, Netherlands, Sweden, Switzerland, UK, USA), issued a 'Statement of Principles', endorsed by all the participating authorities. This document was inspired by the perceived need to safeguard stability and public confidence in the banking system following the inadvertent association of banks with criminal activities. The principles covered the three cornerstones of money laundering controls – avoidance of suspicious transactions, cooperation with law enforcement agencies; and 'know your customer'.

The **United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances**, which also came into effect in 1988, was the first multilateral, legally-binding instrument to address the issue of money laundering. Its provisions, which are discussed fully in Part 5.3, encourages international cooperation to identify, trace, seize and confiscate the proceeds of drug trafficking and to prosecute those responsible for laundering illicit profits; as of 31 October 1996, 137 countries had ratified the 1988 Convention. However, as most state parties to the Convention were 'in the process of' implementing its requirements at the time of ratification, it should not be assumed that all 137 had arrived at a similar level of legislative control. For this reason, and to encourage new ratifications, UNDCP provides assistance to Member States of the UN in the fight against money laundering.

UNDCP's approach is a three-tiered one, based on awareness raising, improvement of the legal framework and professional training. Model legislation on money laundering has been developed which is adaptable for states with different law systems; UNDCP has provided, or is providing, assistance to develop the appropriate laws and legal infrastructures for countries such as Bolivia, Brazil, Colombia, Mauritius, Myanmar, Nigeria, Pakistan, Thailand and Sri Lanka. The Programme also trains relevant officials in law enforcement, the judiciary and the financial sector in the practical implemention of legislation. In addition, UNDCP has set up a network of expert consultants to assist Member States, has prepared a money laundering training manual and an awareness video, and has defined, with other partners, a format to establish a world compendium on money laundering legislation, procedures, and international cooperation.

The **Financial Action Task Force (FATF)** was established by the Group of Seven major industrialized countries and the President of the Commission of the European Communities at the 15th annual economic summit held in Paris in July 1989. FATF membership now includes the 24 OECD countries, Hong Kong, Singapore, the Co-operation Council for the Arab States in the Gulf, and the European Union. The participation in FATF of representatives from law enforcement agencies and ministries of finance and justice reflects the multi-disciplinary nature of money laundering control. FATF also works closely with the private financial and banking sector in order to keep abreast of potential developments in money laundering trends. Its three main tasks are: to observe members' progress in implementing measures to counter money laundering; to analyse and monitor new techniques in money laundering and countermeasures; and finally, to encourage non-member countries to adopt and apply measures to counter money laundering. Pursuant to the last aim, the Caribbean Financial Action Task Force was established in 1993, and FATF established a secretariat in Australia to facilitate its efforts in the Asia/Pacific Region.

The cornerstone of FATF's efforts are the 40 Recommendations, first elaborated in 1990 and subsequently updated in 1996, which lay down the most appropriate measures to counter money laundering. These urge: (a) Ratification of the 1988 Convention; (b) The criminalization of money laundering; (c) A strengthening of international cooperation; and (d) The abolition of most bank secrecy laws. The recommendations also encourage countries to adopt provisions for freezing, seizing and confiscating property related to laundered funds. Banks, insurance companies and other non-bank financial institutions are assigned a specific role in the fight against money laundering, and are called upon to report suspicious transactions, to identify their customers, to maintain records and to make records available to the appropriate investigative authorities.

Cash seized in money laundering 'sting'.
Photo courtesy: ©HM Customs and Excise

Other international initiatives have been undertaken against money laundering: The Council of Europe Convention of 1990 addresses money laundering proactively through administrative measures and reactively by means of international cooperation through the criminal law. The EU's 1991 Directive on the 'Prevention of the Use of the Financial System for Money Laundering', responds to the opportunities for money laundering presented by the liberalization of capital movements and of financial services in the European Union. The Directive specifies an ECU transaction ceiling over which banks are required by law to identify customers and requires banks to report suspicious transactions and maintain internal systems to prevent laundering. Model regulations concerning laundering offences connected to illicit trafficking were also approved by the Organization of American States in 1992.

Prevention of money laundering is necessarily an interdisciplinary and international activity.

The financial sector has also been mobilized: in 1992, the International Organization of Securities Commissions adopted a report and a resolution encouraging members to take the appropriate steps to counteract money laundering in the securities and futures markets.

Money laundering investigations can be approached from a 'top down' or a 'bottom up' perspective. In the latter, a case typically begins with a suspicious transaction report, filed by a bank employee to a supervisor when a cash transaction is made and when the amount, the source of the cash or its destination do not correspond to what is known about the business or private activities of the client. Suspicious transaction reports pass from the bank compliance official responsible for supervising anti-money laundering procedures to the

police, finance police or customs authorities – in some cases through the financial investigation department of the central bank. The investigation is followed up accordingly.

'Top down' money laundering investigations may involve long and complex international investigations such as those of 'Operation Green Ice'[72] which concluded in 1992:

Operation Green Ice was an undercover operation designed to expose the financial infrastructure of the Cali Cartel and destroy crucial parts of its financial operations in the USA and Europe. It was led by the US Drug Enforcement Administration with the cooperation of numerous federal and state law enforcement agencies, the Treasury and the Justice Departments, and the national police agencies of eight countries. Law enforcement in Italy, Colombia, the UK, Canada, Spain, Costa Rica and the Cayman Islands actively participated with the USA in planning and carrying out the operation. It began with an FBI undercover operation in Chicago which was gradually extended to New York and Los Angeles, and was joined by the DEA and the Internal Revenue Service as well as several state and federal enforcement agencies. A Colombian national was identified as a major broker responsible for collecting and moving drug proceeds from various US cities to Colombia. Through networks of informers, contacts were made with key financial players and operatives in Colombia. Those individuals gave DEA undercover operatives instructions as to how to proceed. For example, the undercover agents opened up leather goods stores in various cities around the USA after indications that leather goods businesses would make suitable front companies for laundering cash profits. The information from the other countries involved in the investigation was gathered in the course of the undercover activities. During the investigation, drug cartel money couriers provided large amounts of cash to undercover agents, who sent it by wire transfer and through bank accounts in the USA to accounts controlled by drug cartel brokers in Colombia and in several other countries. During the course of these long-term undercover operations, agents monitored the movement and laundering of over US$36 million in drug related proceeds.

Consequences
Cali cartel assets to the value of US$44 million were seized; 152 individuals were arrested world wide, including 112 arrests in the USA. Numerous bank accounts were seized in Chicago, New York and Los Angeles. Seven of the top-ranking financial managers of the Cali cartel who lived and worked in Colombia were lured to meetings outside Colombia and were arrested – two in San Diego, four in Costa Rica and one in Italy.

Italy: *29 arrests were made and US$1.3 million of drug money was seized.*

UK: *Three individuals responsible for laundering the proceeds of Colombian cocaine sales in England were arrested and US$6 million seized.*

Spain: *Four individuals involved in laundering drug money for the Cali cartel were arrested and US$330,000 seized.*

Canada: *US$1.6 million of profits from cocaine sales was seized by the Royal Canadian Mounted Police.*

Colombia: *Colombian national police raided the financial offices of Cali kingpin Rodrigues Orejuela in five different locations in Cali, seizing financial books and records as well as computer disks containing financial transactions and bank account information.*

Cocaine seizure.
Photo courtesy: ©HM Customs and Excise

Conclusions
The operation demonstrated what can be achieved (a) by painstaking, long-term undercover operations, and (b) by international cooperation, when numerous agencies pool their knowledge and expertise.

Outcomes – supply reduction
The evaluation of supply reduction strategies is as problematic as it is for demand reduction. In one sense, there have been many notable achievements, not least of which has been the reaching of broad international consensus on the overall principles to be adopted, and the recognized need for international cooperation to implement them. Drugs that would have appeared on the streets are being seized in ever-greater quantities by police and customs officials, their task facilitated by controls applied by industrial and commercial organizations. Financial law enforcement measures have the potential to inflict real harm on drug trafficking networks by removing the *raison d'être* of a criminal organization – its profits – and by taking out some of its key operatives. These may be a particular deterrent to the 'white collar' criminals who lurk behind a respectable veneer of financial and legal service provision; they are an example to the legitimate banking system of the need for propriety, and to politicians of the value of policies that recoup criminal assets for the good of the community. Confiscated funds can be redeployed such that law enforcement, education, health, and rehabilitation measures are self-funding, turning the drug traffickers' wealth against them and easing the burden of law enforcement on taxpayers. Moreover, the sharing of confiscated assets between agencies participating in money laundering operations encourages international cooperation. Finally and most importantly, confiscated funds are no longer available to criminals to finance further illegal activity. Although sums confiscated to date probably represent only a tiny fraction of illicit gains, money laundering legislation is in its infancy and, given political will, much can be expected from it in the future.

Ultimately, however, supply reduction strategies must be judged by how they affect consumer demand, through the decreased availability of drugs, through an increase in price or through the deterrent effect of the criminal law. In this domain the outcome is undoubtedly less than satisfactory. But yet again, one has to ask the question – what would have happened in the absence of these strategies? The aim of legislation of any kind is to defend the welfare of the greatest number of people. For many years, there has been broad international consensus that this is best done through tight controls over drugs of dependence. The existence of legal instruments which embody this consensus makes it necessary to prosecute those who disregard the law. Some of the possible effects of removing prohibition are discussed in Part 5, the Regulation/Legalization Debate.

If one takes the USA as an example, supply strategies can be evaluated in various ways. Despite the very substantial increases in federal government investments in drug supply control, cocaine availability increased during the 1981 – 1991 period. This is generally attributed to the extraordinary growth of coca cultivation and production, such that even with an increasing volume of cocaine being intercepted, the volume entering the market still grew. However as the US Country Profile shows (see Part 7), occasional use of illicit drugs decreased during the 1981 – 1991 period. If the overall consumer population were to shrink, in the long run this should produce a lower total number of problem drug users.

When studied in terms of relative expenditures on supply and demand, prevalence of illicit drug use seems to be more responsive to changes in demand reduction activities than to supply. One study suggested that in the USA, domestic enforcement, the least costly supply control measure, cost 7.3 times as much as treatment to achieve the same consumption reduction.[73] However awareness of supply reduction activities may well contribute in intangible ways to changes of attitude towards illicit drug use, and in this sense the two sides of the equation may not be separable.

Realistically, we have to accept that human beings are imperfect, and therefore that drug problems and drug abuse which have been with us for centuries, albeit in milder form, are likely to remain for the forseeable future, as are the conditions that contribute to them – boredom, insecurity, ignorance, unhappiness and poverty. But what we *can*

do is try to prevent the exploitation of these vulnerable conditions by criminal greed. In the words of the eighteenth century writer, Edmund Burke, "All it takes for evil to triumph is for good men to do nothing". In the end, perhaps this is what drug supply reduction is all about.

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Part 7:

Country profiles

Australia

Colombia

Italy

Pakistan

Sweden

Thailand

United Kingdom

United States of America

INTRODUCTION TO THE COUNTRY PROFILES

The purpose of the country profiles is to give a more complete picture of the drug situation in eight selected countries. The choice of 'core countries', which had to be restricted for reasons of space, was made on the basis of geographical variation, differences in drug problems and policies, and because the countries concerned regularly collect and publish data on illicit drugs. Each profile begins with a summary table of indicators describing the socio-economic situation and different aspects of the drug problem. These tables enable the reader to make rapid comparisons of the core countries, although some of the indicators are not strictly comparable.

The socio-economic indicators give a background to the drug phenomenona in order to 'place' the country into the general picture given in Part 1. Other groups of variables describe the extent and patterns of drug use, consequences of drug use, the illicit drug market, drug-related crime and responses to the drug problem. The country profiles are divided into sections which roughly correspond to the sections of the summary table.

The difficulties in comparing available data from the core countries have necessitated new ways of examining the drug problem. In order partly to overcome the problems, two new indices were elaborated which enhance cross-country comparisons, though in a more qualitative and less exact way. The idea of rating, indexing and combining several variables together is not new – it has been used for comparing the competitiveness of countries, measuring the quality of life, credit risk management, etc.

THE INDICES

The rating of drug-related problems is applied within a single country to obtain an order of drugs according to the extent of use and their impact on society. These ratings can then be compared to those of other countries in order to see which drugs are causing most problems. However, the method does not address the question of the 'size' of drug-related problems in comparison to other countries. This approach is less sensitive to differences in the methods of data collection than an approach based on exact numbers, and the picture obtained is not as exact as one would get from precise data. If the metaphor of a picture were extended, one could say that this approach provides a collage of different photos, but they have lost some of their original sharpness in the process.

To build comparative indices, two basic definitions have to be made – the choice of indicators and the drugs to be included in the analysis. The relevance and availability of several indicators were studied. Several indicators do not just measure one thing, but several at the same time. This is illustrated by Table 1.

Several indicators are linked both to health consequences and to law enforcement. Furthermore, they are also indirect measures of the extent of the illicit drug market.[1] As a result they are strongly mutually correlated. If several mutually correlated indicators are used simultaneously, some phenomena may be counted many times and the corresponding rankings could be distorted.

Some of the indicators are recorded by different government agencies. For instance, seizures are recorded by the police and persons detained are

1 If the number of persons detained for drug-related offences is designated with N_p, then N_p becomes a function of the law enforcement efforts l_e, and of the extent of the illicit drug market, with a measure denoted by d_m, as follows: $N_p = f[(l_e, d_m)]$. It is therefore then possible to further assume the following relationship:

$$N_p = f\{(l_e)\ (d_m)\} = k^* l_e{}^* d_m, \text{ where } k = \text{constant.}$$

N_p must be zero if either the size of the market is zero or the law enforcement is zero and N_p is proportional to both quantities. Similarly, other indicators depend on similar products, most depending on d_m, and this fact produces strong mutual correlations between them.

Table 1. Possible indicators to be included in a descriptive index for a country.

Indicator	Measurement
Drug-related deaths	Risky use of drugs/Extent of drug use
Hospital admissions	Drug-related morbidity/Extent of drug use
Drug treatment services clients	Rehabilitation policy/Extent of drug use
AIDS and other infections relating to drugs	High risk behaviour/Extent of drug use
Injecting drug use	High risk behaviour
Frequency of daily use	High risk use/Extent of drug use
Lifetime prevalence of use	Extent of use
Number of seizures/quantity seized	Law enforcement policy/Extent of drug use
Cautionings and similar actions	Law enforcement policy/Extent of drug use
Persons detained for drug offences	Law enforcement policy/Extent of drug use
Drug dependent persons detained for other crimes	Drug-related crime/Extent of drug use
Division of expenditures for education etc.	Drug control policy

recorded by justice departments. Other indicators are estimated on the basis of survey data. The practices and methods of the government agencies and survey researchers vary. As a consequence, the quality and accuracy of the indicators are not identical between the countries. The grouping of drugs for the indices are as follows:

Cannabis (marijuana, hashish);
Cocaine (paste, powder, crack);
Depressants (benzodiazepines, barbiturates, non-barbiturate sedatives);
Hallucinogens (LSD, PCP, etc.);
Inhalants (glue, thinners, etc.);
Opiates (opium, morphine, heroin, synthetic opiates); and
Amphetamine-type stimulants (ATS) – amphetamines and the ecstasy group.

Domestic surveys on drug use do not use the same groupings in different countries. Furthermore, in some cases the groupings have undergone minor changes over the years. This has naturally increased the difficulty of having a consistent framework for comparison. Therefore, the use of assumptions based on the available data was sometimes unavoidable in constructing the indices.

The simultaneous use of more than one drug cannot be taken into account as it is not homogeneously defined for different indicators. Therefore, so-called polydrug use cannot be included as a special class. Whenever a principal drug has been denominated in polydrug use cases, the figures are assigned to that drug. The phenomena were then studied by drug group according to the following methodology – suppose that the number of substances taken into account to describe the drug situation is k (here = 7). For any of the indicators, the index gives a rank of k to the most frequently mentioned drug in the relevant statistics for the latest available year. The second most prevalent drug, according to this criterion, gets rank k–1 (=6), the third gets k–2 (=5) and so on up to rank 1 (k–6). Other drugs get a ranking of 0. For each drug, the sum of these rankings provides the overall rating, which may be indicative of its permeation in the society or its 'cost' to society, depending on the indicators chosen for the analysis.

The American data in Table 2 give an example of how the rankings can be used.

Table 2 comprises prevalence data from surveys together with data from different governmental

Table 2. Drug indicators for the USA.

Indicator	Stimulants	Cannabis	Cocaine	Depressants	Hallucinogens	Inhalants	Opiates
Injecting use among emergency room clients	5	2	6	4	3		7
All emergency room clients	3	4	7	5	2	1	6
Drug-related deaths	4	3	6	5	2	1	7
Lifetime use, 19-28 year-olds	6	7	4	2	5	3	1
Lifetime use, 12+	4	7	6	1	5	3	2
Yearly use, 12+	1	7	5	2	4	3	6
Monthly use, 12+	1	7	5	2	3	6	4
Seizures in units	5	6	7	2	3		4
Possession arrests	5	6	7	2	3		4
Possession convictions	5	7	6		3		4
Trafficking arrests	5	6	7	2	3		4
Trafficking convictions	5	6	7	2	3		4
Total	**49**	**68**	**73**	**29**	**39**	**17**	**53**

agencies. The first rows contain information about the health consequences of drug abuse while the last rows contain information both on the size of the illegal drugs market and law enforcement policy; the rows where prevalences are reported can be considered as related mainly to the extent of drug use and abuse. It should be noted that some variables do not have a meaning for all the drugs, like seizures of inhalants. However, this is not considered to be a major problem among the variables that were used. It can be seen that law enforcement indicators are closely correlated with each other, probably resulting from measuring the same judicial processes from different angles.

THE DRUG ABUSE INDEX (DAI)

The DAI is calculated using the indicators related to the extent and consequences of drug abuse. The indicators are divided into four groups – extent of use, prevalence of injection, morbidity and mortality. Prevalence of use is the most direct indicator for giving an estimate of the most frequently used illicit drugs. Injection is included as a separate group owing to the potential of injectors to acquire and transmit disease. Morbidity can be measured by hospitalizations and by numbers of treatment clients. Hospitalization mainly measures acute syndromes, while the number of persons in rehabilitation measures chronic problems. However, both indicators measure the impact on the health care system, and they are both used whenever available. Mortality is a culmination of adverse consequences and needs to be included to complete the picture on the cost of different drugs to individuals and society.

Each group forms a component that gets a ranking according to the sum of its components. The indicators that form the components are not exactly the same among all the countries owing to a lack of data. For example, in some cases morbidity includes only treatment clients, in others only hospitalizations, as in the case of the USA.

Law enforcement data, especially seizures, can be used to complement data on drug use when no

Table 3. Drug Abuse Index for the USA.

Component	Stimulants	Cannabis	Cocaine	Depressants	Hallucinogens	Inhalants	Opiates
Use	2	7	6	1	5	4	3
Injecting	5	2	6	4	3		7
Morbidity	3	4	7	5	2	1	6
Mortality	4	3	6	5	2	1	7
Total	**14**	**16**	**25**	**15**	**12**	**6**	**23**

surveys are available, or when they cover only a few drugs or a limited share of the total population. Dividing indicators into components and the forming of ranking tables in two steps avoids the reiteration of indicators reflecting the same phenomenon. Thus the weighting of the components in the final index is not affected by the number of indicators available for a component. Table 3 shows the results of the exercise described above, and tells us at a glance which seem to be the most problematic drugs in the USA – cocaine and opiates.

THE DRUG ABUSE TREND INDEX (DATI)

The concept of the Drug Abuse Trend Index (DATI) is similar to that of DAI, only that the ranking ranges from –k to k and reflects the extent of relative changes in the indicators during the last 3 – 4 year period. The change may be either negative or positive. The DATI clearly requires more information – homogeneous data are required for at least two consecutive periods. However, it is valuable to compare it with the DAI in order to gauge current trends or to predict new ones. Table 4 illustrates the use of DATI.

The largest and second-largest changes in morbidity in Sweden have been negative; thus we have a ranking of –7 for cocaine and –6 for cannabis. The third-largest change was positive, thus has a ranking of 5. The Swedish table also shows that our data set is far from perfect owing to missing data.

The sum of rankings is one way of looking at the composite trend of a drug, but in the country profiles the indices are depicted in graphs where both the negative and positive components are shown in full strength. This is important because inferences can be made from the composition of the trend index. For example, when the use component has a negative trend but other indicators show growing trends, the heavy drug-user population may still be growing although recruitment of new users is declining. On the other hand, when mortality and morbidity have diverging directions, caution is needed in interpretation. And if all the components get very low rankings, the situation should be reasonably stable.

Fig. 1 modifies and applies one of the best known approaches to portfolio analysis, the Boston Consulting Group's growth-share model, used

Table 4. Drug Abuse Index for Sweden.

Component	Stimulants	Cannabis	Cocaine	Depressants	Hallucinogens	Inhalants	Opiates
Use	4	7	2	5	3	6	1
Injecting	6						7
Morbidity	5	–6	–7				–4
Mortality	6	–4		7	–5		–3
Total	**21**	**–3**	**–5**	**12**	**–2**	**6**	**1**

Fig. 1: Drug problem profiles of the core countries.

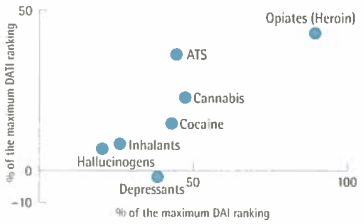
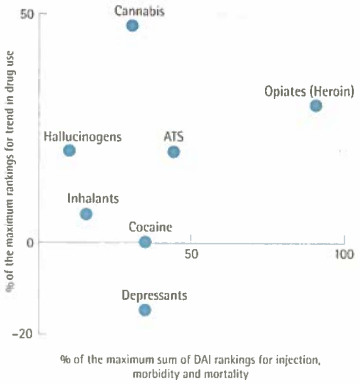


Fig. 2: Current cost situation and trends in use.

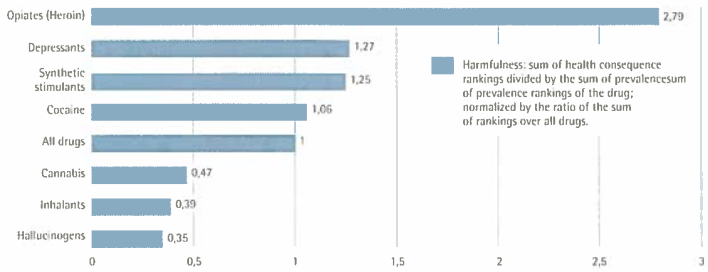


originally to produce a matrix of market shares and growth rates of competing products. Fig. 1 contains the sum of DAI rankings on the horizontal axis and the sum of DATI rankings on the vertical axis for each drug, thus presenting an image of the severity of problems associated with the drug and their trend in the same Figure. In the chosen set of core countries, opiates get the highest ranking both for the actual situation and for the trend in the past few years. This conclusion does not depend on the inclusion of injecting into the index; opiates would rank highest even without it. The upward trend in synthetic stimulants corresponds to the results of a UNDCP global review on ATS. The downward trend of depressants, however, is not supported by the trends in seizures (see Part 1). The results are probably explained by the non-randomness of the sample and the existence of large regional variations in depressants' use.

The growth-share matrix can be further modified in order to make it more forward-looking. Given that the consequences of drug use may be felt years after an upsurge in drug use, it is possible to plot trends in drug use against current rankings in 'costs' components (injection, morbidity and mortality). Fig. 2 shows greater differences between the drugs. What is new in this plotting in comparison with the first, is the emergence of cannabis and hallucinogens as 'high growth' drugs, with a stable situation for cocaine and a sharper decline for depressants. Another possible way to examine the drugs is to divide the rankings for injection, morbidity and mortality by the prevalence rankings in order to reach an estimate for the relative harmfulness of the drugs. Fig. 3 depicts the results for the eight core countries.

Because the set of countries is small and is not a random sample, the results of these summary charts cannot be generalized to the global level. As far as the core country sample is concerned, it can be concluded that opiates and ATS should receive special attention in drug control policies in the coming years. Preventive actions would also have to concentrate on cannabis and hallucinogens, although they seem not to cause as many health problems as opiates and stimulants.

Fig. 3: Relative harmfulness of different drugs.



Based on the core-country data; considered health consequences (or risks) are: morbidity, mortality, injection. Please note that data set is incomplete and that it is based on a non-random sample of countries.

Throughout this section each core country profile begins with a Summary Statistics List, where the following abbreviations are used:

PPP	=	Purchasing power parity
HDI	=	Human Development index
GDP	=	Gross Domestic Product
FY	=	Fiscal year
g	=	Gram
Bn or bn	=	billion (1,000,000,000)
IDU	=	Injecting-drug user

her. = heroin; coc. = cocaine; amph. = amphetamines; ATS = amphetamine-type stimulants; cann. = cannabis; stim. = stimulants.

Australia • Summary Statistics

BACKGROUND

1.	Population (1994)	17,843,000
2.	Population growth rate, (%) (1990 – 1994)	1.1
3.	15 – 24 year-old population (1994)	2,733,000
4.	Share of urban population, (%) (1993)	85
5.	Deaths/1,000 (1993)	6.9
6.	Births/1,000 (1990 – 1995)	14.7
7.	Real GDP per capita, US$ (PPP$ 1993)	18,530
8.	HDI rate (1993)	0.929
9.	HDI rank (1993)	11
10.	Real GDP per capita (PPP$) rank minus HDI rank (1993)	7
11.	Unemployment rate, (%) (1994)	8.9
12.	Social security & welfare benefits as % of GDP (FY 1993/94)	9.8
13.	Share of education of total public expenditure, (%) (FY 1994/95)	8.3
14.	Share of health of total public (Federal) expenditure, (%) (FY 1994/95)	14.3

EXTENT AND PATTERNS OF DRUG USE

15.	Lifetime prevalence of drug use among 14 – 24 year-olds, (%) (1991)	52
16.	One-year prevalence of drug use among 14 – 24 year-olds, (%) (1991)	33
17.	Number of dependent users	n.a.
18.	Share of males among dependent users, (%) (treatment clients, 1995)	71
19.	Estimated number of dependent heroin users (1988 – 1993)	90,000 – 285,000
20.	Share of persons under 20 years among dependent users, (%) (treatment clients, 1995)	8.2

CONSEQUENCES OF DRUG USE

21.	Percentage of injectors of dependent users (treatment clients, 1995)	70
22.	Cumulative AIDS cases per 100,000 people (1995)	32.9
23.	Share of IDU-related AIDS cases in 1995, (%)	n.a.
24.	Drug-related deaths per 100,000 people (1992)	4.6
25.	Share of under 25 year-olds of all deaths, (%) (1992)	3.7
26.	Share of under 25 year-olds of drug-related deaths, (%)	n.a.
27.	Annual trend in the number of drug-related deaths, (%) (1988 – 1992)	-9.5

ILLICIT DRUGS MARKET

28.	Price of heroin at retail level, US$/g (1994, not pure)	37 – 732
29.	Price of cocaine at retail level, US$/g (1994, not pure)	73 – 585
30.	Price of amphetamine at retail level, US$/g (1994, not pure)	18 – 88
31.	Price of cannabis at retail level, US$/g (1994, not pure)	7 – 37
32.	Consumption expenditure on illicit drugs, US$ million (cann., coc., her., 1988)	2,045 – 4,389
33.	Consumption expenditure on heroin, US$ million (1988)	546 – 1,172

CRIME, LAW ENFORCEMENT AND DRUG POLICY

34.	Annual trend in the number of seizures, % (1990 – 1994)	-0.7
35.	Retail market value of seized drugs, US$ million (her., coc., amph., cann., 1994)	700
36.	Offences of acquisitive crime per 100,000 people (1990)	5,685
37.	Offences of violence per 100,000 people (1990)	123
38.	Persons arrested for drug offences per 100,000 people (1994)	313
39.	Annual trend in the number of drug law offences, (%) (arrests 1990 – 1994)	+17.3
40.	Share of possession offences out of all drug law offences, (%) (arrests, 1994)	79
41.	Share of incarcerations of all drug law offenders found guilty, (%)	n.a.
42.	Average length of prison sentences for drug-related offences, months (1990 – 1991)	5
43.	Share of prevention and treatment of the public drug control budget, (%) (1992)	<15

For sources and/or basis of calculation please see the end of this country profile

1. BACKGROUND

The Commonwealth of Australia, a democratic Federal State within the British Commonwealth, is divided into six States and two Territories. In June 1994 the States and Territories and their populations were:

New South Wales	6,051,500
Victoria	4,476,100
Queensland	3,196,900
Western Australia	1,701,900
South Australia	1,469,800
Tasmania	472,400
Australian Capital Territory	300,900
Northern Territory	171,100
Total	**17,840,600**

The major types of welfare provision are old age pension, disability support benefit, supporting parent's benefit, and unemployment benefit. Social security and welfare represented 36% of the total federal expenditure in the financial year (FY) 1994/95. Health expenditure was 14.3% of the total federal government expenditure.

Education is the responsibility of the state governments. The federal government provides supplementary finance to states and is also responsible for funding universities. School attendance is compulsory between the ages of six and 15 (16 in Tasmania), but most children start school at five years of age. The 11th and 12th years of schooling are optional, but two thirds of the students complete the 12th year. Tertiary education, both at universities and in other further education, has attracted increasing numbers of students, in part due to poor labour market conditions facing young job-seekers. The federal government spent 8.3% of its budget on education in the 1994/95 FY (Economist Intelligence Unit 1995).

In December 1994 Australia had a labour force of about 8.9 million, split roughly 60:40 between males and females. During the early 1990s the labour force growth slowed down as a result of economic recession. Unemployment reached 11% in mid-1992, but by the end of 1994 it was down to 8.9% (Economist Intelligence Unit 1995). Youth unemployment has been more pronounced – in 1992 it reached 21% for males and 18% for females aged 15 – 24 (UNDP, 1995).

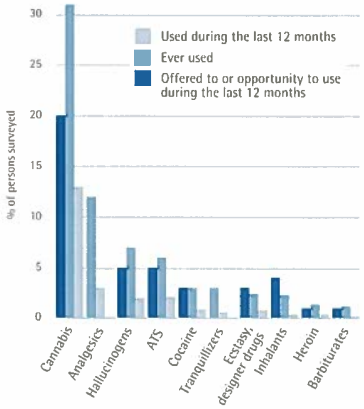
2. EXTENT AND PATTERNS OF DRUG USE

Australia's 1995 National Household Survey found that 39% of the population aged 14 or more had tried at least one illicit drug (including non-medical use of prescription drugs, naturally occurring hallucinogens and inhalants) and 17% had used one in the last 12 months. The prevalence of drug use was generally higher among males than females across all age groups and for most drugs. However, according to a 1991 survey, women used barbiturates more or less as often as men. In a 1995 survey, gender rates for barbiturates use were not reported.

Of the age groups surveyed, 14 – 24 year-olds showed the greatest increase in lifetime use of any illicit drug. However, the highest prevalence rate of 62% in 1991 corresponded to those aged 25 – 39, showing that illicit drug use is not a recently developed phenomenon in Australia. Lifetime use of illicit drugs was not very common among the population aged 40 and over.

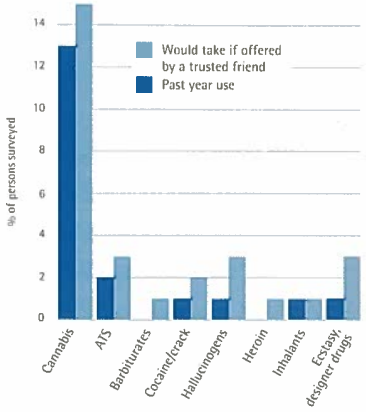
Cannabis is the most common illicit drug offered and used in Australia, with almost one third of persons having tried it up to 1991. In 1995, 31% of the surveyed persons admitted having tried cannabis (Commonwealth Department of Health and Family Services, 1995a). Hallucinogens were the second most prevalent illicit drug group, followed by amphetamine-type stimulants (ATS) (excluding the ecstasy group), barbiturates, cocaine, tranquillizers, ecstasy and other 'designer drugs', inhalants and heroin (see Fig.1). The ecstasy group of drugs had been tried by 2 – 3% of those surveyed in 1991 – 1995. The surveys show a significant drop in the proportion of persons who had ever tried barbiturates, from 9% in 1985 to 1.2% in 1995.

Fig. 1: Drug use in Australia in 1995.



Source: Commonwealth Department of Health and Family Services, 1996.

Fig. 2: Acceptance and past year use of illicit drugs.



Source: Commonwealth Department of Health and Family Services, 1994.

More than half of the persons aged 14 – 39 have tried cannabis. If this pattern is sustained as new generations grow up, some believe that increasing pressure may build up against the illegal status of cannabis (Makkai, McAllister, 1993). Past-year prevalence figures disclose that currently the most active drug user group is 14 – 24 year-olds for all drugs. Within this age group ATS and hallucinogens are clearly the most popular drugs after cannabis.

Australian surveys also include a question whether a person would accept illicit drugs if offered by a trusted friend. The percentages of people prone to try drugs correspond most closely to the prevalence figures of past year drug use rather than those of lifetime prevalence, suggesting that most people who have tried drugs at some time are not using them any more and would not use them even if they were offered (see Fig. 2).

The clients of treatment service agencies were surveyed in March 1995. This survey was carried out during 24 hours in practically all identified drug and alcohol treatment agencies which are specialized in the care, treatment or rehabilitation of persons requiring assistance because of problems caused or exacerbated by the use of substances, including alcohol. The response rate was 92%. Over the 24-hour period, 4,775 substance abusers received some form of intervention for drug-related problems in the 458 agencies that participated in the survey and saw clients (Commonwealth Department of Health and Family Services, 1995b).

The survey asked respondents to name their main drug problem. For a number of clients more than one drug problem was listed. Legal and illegal drugs were treated in the survey without distinction, following the Australian policy, based on harm reduction, which treats all substance abuse within the same organizational structure. Alcohol was the most frequently nominated substance, followed by opiates, opiates/polydrug use, tobacco and cannabis. Tranquillizers, including benzodiazepines and barbiturates, were mentioned in 4.8% of the cases; and ATS were mentioned in 6.5% (Commonwealth Department of Health and Family Services, 1995b).

Table 1. Principal problems of female and male substance users in treatment, (%).

	Female substance users	Male substance users	All substance users
Alcohol	41.7	52.4	49.3
Opiates	39.1	31.2	33.5
Tobacco	3.9	5.2	4.8
Benzodiazepines	8.2	2.8	4.5
Cannabis	5.1	7.3	6.7
ATS	6.2	6.6	6.5
Polydrug (excl. opiates)	3.5	3.4	3.5
Other drugs	2.4	2.0	2.1
Inject drugs in past 12 months	41.7	37.2	38.6
% of all clients	29.0	71.0	100.0

Note: Figures include more than one substance for some users.
Source: Commonwealth Department of Health and Family Services, 1995b.

Compared to the survey conducted in 1992, more clients had cannabis and ATS listed as their main problem and fewer clients had problems with alcohol. There had been no significant change in the proportion of clients with problems connected with opiates, cocaine, hallucinogens, inhalants or benzodiazepines (Commonwealth Department of Health and Family Services, 1995b).

The survey also reports that the number of methadone programme clients at 31 March 1995 was 16,906, of which 505 were included in other survey figures (because they had received other forms of treatment or counselling during the survey day). Therefore, the number of dependent opiate users in treatment seems to be significant compared to those of other illicit drugs. The total population undergoing some form of treatment was estimated at 35,000 – 51,000 at any one time of the year. A total of 39% of all substance abusers injected drugs in the 12 months preceding census day. The most widely injected drugs were opiates, ATS, cocaine and benzodiazepines.

Of substance abusers 71% were male. Men listed alcohol more frequently as a drug problem than women, who were more likely to have problems with opiates, benzodiazepines, and with polydrug use excluding opiates. Women in treatment were younger than men and they had more frequently injected drugs during the last 12 months (42% and 37%, respectively). However, if alcohol abusers were excluded from the data, the share of injectors among males would probably be higher than among female drug abusers. Women received outpatient or non-residential services more often than men (63% and 50%, respectively).

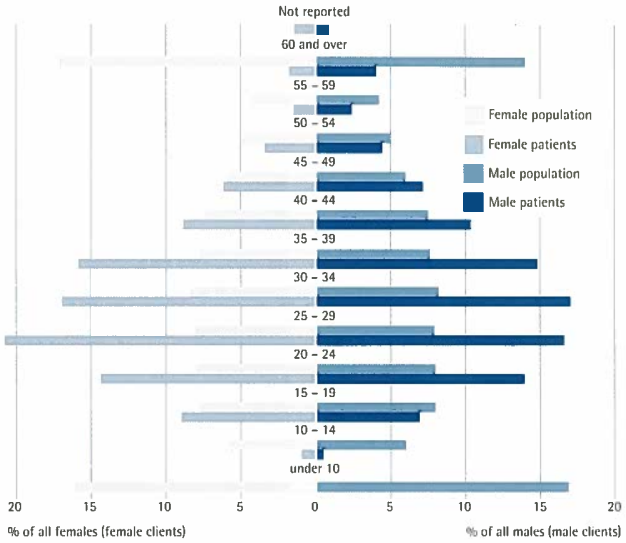
More than two fifths (43.4%) of the persons treated were unemployed and 18.4% were employed full-time or part-time, the rest being pensioners (23.2%), employed at home, retired, students, prisoners, or their employment status was unknown.

The proportion of age groups 15 – 49 among female treatment clients and 20 – 49 among men are over-represented in comparison to their shares of the general population. Among female clients, the largest age group is 25 – 29, but among men the 30 – 34 range is the largest single age group. However, it should again be borne in mind that alcohol abusers are included in these figures, and that alcohol abusers represent more than half of the male substance abusers in treatment (see Fig. 3).

In the survey 150 prisoners were included. Prisoners more frequently had problems with opiates, cannabis and ATS than the other substance abusers, and were also younger.

Several studies have been conducted on specific drug user populations in Sydney. Hando and Hall summarized four studies on injecting drug users, recreational drug users, youth in detention and amphetamine users. A common factor among

Fig. 3: Age pyramid of drug treatment clients and of general population.



Sources: Commonwealth Department of Health and Human Services,1995b – UN Demographic Yearbook 1993.

these populations was polydrug use during the month before survey; cannabis and alcohol were used by most consumers in all studies, and substantial minorities had also consumed amphetamines, tranquillizers, heroin, hallucinogens, ecstasy and cocaine, although those were not the principal drugs habitually used. Inhalant use was fairly common with the exception of injecting drug users, among whom no use was reported.

Injecting drug users had more frequent drug treatment contact than other groups (62% of the surveyed). However 11 – 34% of the persons included in other studies had injected drugs during the month before study. In another study, 300 injecting drug users were interviewed. The average age of initiation among this group was 16.2 years, the most common drug first injected being amphetamine. The average rate of injection was 9.4 times per week.

Street children aged 14 – 19 were included in the 1992 national survey. They had a radically different profile of drug use and exposure than other groups. The average number of drug types tried was 9.8 among them, while youth aged 14 – 19 in the general population had an average of 2.9. The only drug that had not been tried by the absolute majority was heroin. However, heroin use was over 20 times more frequent among street children (45%) than among other youth of their age (2%; Department of Health, Housing and Community Services, 1992).

3. CONSEQUENCES OF DRUG USE

A study commissioned by the National Campaign Against Drug Abuse (NCADA) estimated that for males, illicit drug use was responsible for about 0.3% of all hospitalizations and bed days in Australia in 1986. For females, it was estimated that illicit drug

use caused 0.2% of hospitalizations and bed days. Based on the 1986 survey, it was projected that 10,000 hospitalizations and 61,000 bed days would be caused by illicit drug use in Australia in 1990.

The illicit drug-related hospitalization data from the most populous state of New South Wales show that the 15 – 34 age group requires the highest level of treatment. In all the age groups, women had higher rates per 100,000 inhabitants than men in 1990 – 91. The number of HIV cases among the 15 – 49 year-old population was estimated at 11,000 at the end of 1994, while the number of AIDS cases reported as of 31 December 1995 was 5,883. By the end of 1991, injecting drug users, either homo- or heterosexual, accounted only for 3.6% of all notified AIDS deaths.

In 1990 an estimated 527 deaths were due to illicit drug use, representing about 2% of all substance abuse-related mortality, according to the Department of Health, Housing and Community Services (1992). The overall drug-related mortality rate was reported to be 4.6 per 100,000 inhabitants in 1992, or 820 deaths, according to the Australian Bureau of Criminal Intelligence (ABCI,1995). However, this source also reported a similar number of deaths for 1990, so the overall mortality rate has probably not changed during the 1990 – 1992 period.

The opiates-related mortality rate rose sharply in the 1980s. This may be due to the high purity levels of heroin available and the higher risk levels associated with its use by polydrug users (ABCI, 1995). The next most important drug type is the barbiturates group, with a mortality rate of 0.2 per 100,000 in 1990. Barbiturates-related mortality decreased throughout the 1980s.

Fatal traffic accidents among drivers in Australia have been studied. Responsibility of drivers for an accident was classified as 'culpable', 'contributory', and 'not culpable', according to an index of eight mitigating factors. Drivers with drug concentrations higher than that which could be regarded as low therapeutic use tended to be culpable. All drivers considered to have drug concentrations much higher than that which could be regarded as reflecting therapeutic use, i.e. 'non-therapeutic' were culpable or contributory in the accident (Drummer, 1995).

DAI and DATI

The Drug Abuse Index (DAI) indicates heroin, ATS and depressants as the drugs causing the majority of social costs of drug abuse (see Fig. 4). The Drug Abuse Trend Index (DATI) predicts that Australian drug use and its health consequences will continue to concentrate on opiates and ATS. However, cannabis-related problems are also increasing. Depressants and cocaine use seem to have passed their peak, since both show a negative trend in use but some of the health consequences are still growing (see Fig. 5).

4. ILLICIT DRUGS MARKET

Australia has considerable cannabis cultivation with which to supply the domestic market. The overall number of cultivated areas seems to be growing and the average size declining in order to avoid detection. Increasing indoor and

Fig. 4: Drug Abuse Index (DAI) – Australia.

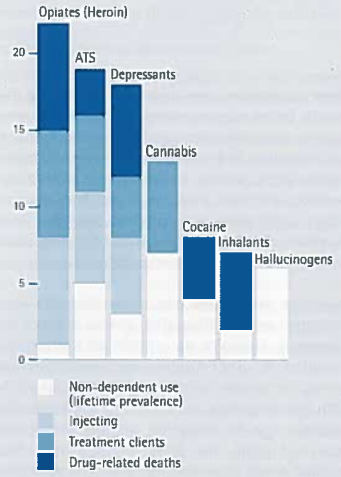
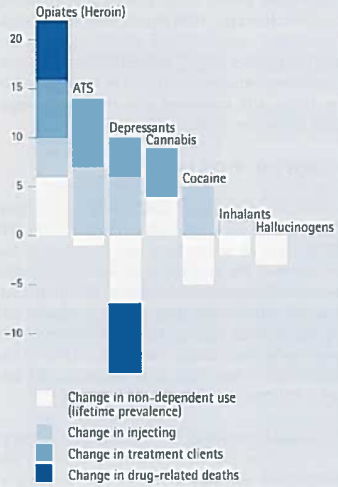


Fig. 5: Drug Abuse Trend Index (DATI) – Australia.



hydroponic cultivation have also been noted. However illicit imports of cannabis are also occurring, suggesting that the local production is not totally satisfying local demand. Most high quality cannabis is still imported into Australia (ABCI, 1995).

ATS, the second most popular drug type in Australia, are also locally manufactured. Information indicates that various criminal groups and individuals are actively extending their criminal activities in the production and supply of ATS. Clandestine laboratories are constantly discovered. ATS are reported as readily available, particularly in the 'rave' or night club scenes (ABCI, 1995). Australia may also be a target for trans-shipment of illicit drugs for cocaine destined for the Asian market and for heroin destined for the US market (US State Department, 1996).

The seizure data confirms the consumption patterns. Cannabis is by far the most frequently seized drug, followed by stimulants and heroin. Cocaine is seized less frequently, but in relatively large quantities. The average weight of combined customs and police seizures has consistently been over 1 kg per seizure, and during some years nearly 10 kg. However, seizure data are quite patchy, so in-depth analysis of trends is difficult. Year-to-year variations, for example in the weight of cannabis seizures, are extremely high. This seems to be due to occasional significant seizures. Furthermore, the numbers of seizures are not reported for all years and drugs.

Wide varieties in the street price of illicit drugs reflect the vagaries of the reporting process and restrict the usefulness of this measure. Furthermore, prices vary regionally. For example, in 1994, in Western Australia prices for heroin ranged from US$40 for a street gram to US$510. Large variations of prices are also reported during the year, for example in the Australian Capital Territory. The Report by the Parliamentary Joint Committee on the National Crime Authority, or "Cleeland Report" (in Marks, 1992) estimated the turnover for illicit drugs in Australia for 1988. No estimate was given for amphetamine turnover. The estimate for illicit drugs has been challenged as being far too conservative by Marks (1992), who gave the following estimates.[1] See Table 2. According to this calculation the turnover of these three drugs alone would have been 0.9% to 1.9% of 1987/88 gross domestic product (GDP).

Table 2. Turnover of illicit drug market in 1988.

	Cleeland report	Marks, 1992
	US$ million	US$ million
Cannabis	1,489	3,195
Heroin	546	1,172
Cocaine	10	22
Total	2,045	4,389

Source: Marks, 1992.

1) Exchange rate of 1 US$ = 1.28 A$ was used in converting the figures to US dollars.

5. CRIME AND LAW ENFORCEMENT

Criminal activities, especially violent crime, including intentional homicide, assault and rape, increased almost 50% during 1986 – 1990. The growth in acquisitive crime was slower – 15% higher in 1990 than in 1986. However there is practically no annual drug-use indicator available with which to compare this trend.

Several studies have examined the link between crime and drugs in Australia. The New South Wales Bureau of Crime Statistics and Research found that drug users generally had a substantial involvement in crime before developing a drug habit. It was also noted that success in controlling availability of drugs may in fact increase property crimes, as a means of financing the habit (ABCI, 1995). Marks (1992) estimated that the amount of 'forced transfers' through property crime, made in order to finance heroin abuse, amounted to US$326 million in 1987. The orders of magnitude of mounting crime, violence and drug offences in 1990 can be seen in the Summary Statistics. Drug offence arrests had only a slightly higher rate than violence offences in 1990, but in 1994 had risen to 313 per 100,000 persons.

Cannabis was the drug most frequently mentioned in drug law offences, accounting for 82 – 85% of the total of cannabis, cocaine, heroin, amphetamine and LSD-related offences during 1990 – 1994. Amphetamine and heroin offences represented 8 – 10% and 6 – 8%, respectively, of the total during the same period. Cocaine and LSD offences were each 1% or less of the total. Australian statistics divide drug offences into 'consumer' and 'provider' offences. The definition of a consumer offence includes possession for personal use and use itself. A provider is a person who provides the drug to other people, through offences that include drug trafficking, manufacturing, and importing.

In 1994, the highest share of total provider arrests was made for cocaine and heroin offences – 37% and 28%, respectively. For other drugs, provider offences accounted for 20 – 25% of the total. However, most arrests were related to consumption, and cannabis consumption alone accounted for 61% of all arrests. Of all those arrested, 86% were male. The increase in arrests was greatest for LSD, amphetamine, and cannabis offences during the 1990 – 1994 period, which at least doubled during that time. However, 1990 figures seem to be exceptionally low compared with earlier years. At any rate, the number of LSD, amphetamine and cannabis offences genuinely increased in the first half of the 1990s, also compared with the figures registered in the late 1980s.

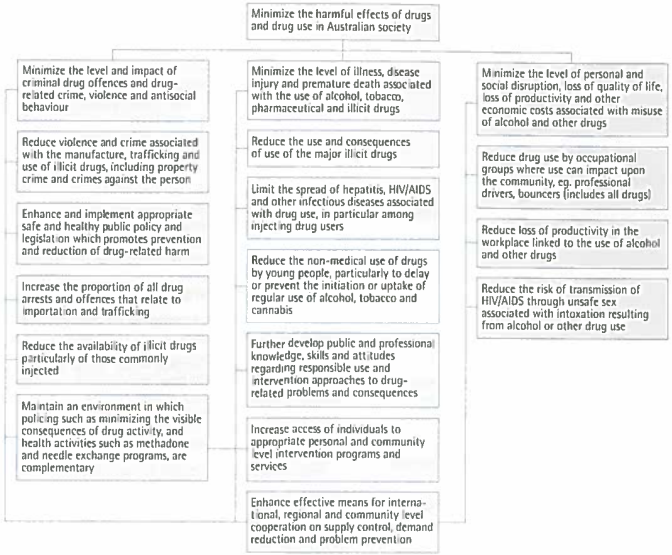
6. DRUG POLICY

In 1992, the federal and state government expenditure due to illicit drug abuse amounted to US$ 393 million, of which 84% was allocated to law enforcement, 6% to health care, and 10% to public awareness campaigns and research, though the last item also includes the costs related to alcohol and tobacco (Collins, Lapsley, 1996). According to the same study, illicit drugs represented 8.9% of the social costs of legal and illegal drugs in 1992 (see Part 3.7 for more on social costs).

The overall objective of the National Drug Strategy is to minimize the harmful effects of drugs and drug use in Australian society. The strategy is divided into policy goals which in turn relate to more drug-specific objectives and activities. Figure 6 shows the objectives that are common to all drugs and those that are illicit-drug specific. It is believed that focusing simply on specific drugs will not solve the problem. Environment and social context are considered critical to the reasons for drug abuse and the potential for harm.

The Australian government continuously evaluates drug policy, and measures changes in public attitudes towards drugs through surveys. When asked to choose between the options of education, treatment and law enforcement for reducing drug abuse, respondents of the 1988, 1991 and 1993 surveys would allocate most money for education, followed by treatment and then law enforcement regardless of whether the drug is cannabis, heroin/cocaine, or a prescribed drug. Over time, the data showed a declining propensity to allocate money to law enforcement and an increasing preference towards education (Makkai, 1993).

Fig. 6: Australian drug policy.



South Australia and the Australian Capital Territory have decriminalized the possession and use of small amounts of cannabis. In other states the maxi-mum penalty for possession of small amounts of cannabis is two years imprisonment. Possession of commercial quantities of illegal drugs may be punished with life imprisonment (McAllister, 1993).

SOURCES AND/OR BASIS OF CALCULATION FOR THE SUMMARY STATISTICS

1. – 3., 5., 6.	UN 1996
4., 7. – 10.	UNDP 1996
11. – 14.	Economist Intelligence Unit 1995
15., 16.	Department of Health, Housing and Community Services 1992
18., 20., 21.	Commonwealth Department of Human Services and Health 1995b
19., 42.	Communication from the Australian Mission in Vienna 1996
22.	UNAIDS 1996
24., 28. – 31., 38., 39., 40.	Australian Bureau of Criminal Intelligence 1995
25.	World Health Organization 1995
27.	Commonwealth Department of Human Services and Health 1994
32., 33.	Marks 1992
34., 35., 44.	UNDCP Annual Report Questionnaires database
36., 37.	UNAFEI, AIC 1990
43.	Collins, Lapsley 1996

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Colombia • Summary Statistics

BACKGROUND

1.	Population (1994)	34,520,000
2.	Population growth rate, (%) (1990 – 1994)	1.7
3.	15 – 24 year-old population (1994)	6,728,000
4.	Share of urban population, (%) (1993)	72
5.	Deaths/1,000 (1990 – 1995)	6
6.	Births/1,000 (1990 – 1995)	24
7.	Real GDP per capita, US$ (PPP$ 1993)	5,790
8.	HDI rate (1993)	0.84
9.	HDI rank (1993)	49
10.	Real GDP per capita (PPP$) rank minus HDI rank (1993)	4
11.	Unemployment rate, (%) (of seven largest cities, 1995)	8.7
12.	Social security benefits as % of GDP (1993)	2.4
13.	Share of education of total public expenditure, (%) (1990)	21.4
14.	Share of health of total public expenditure, (%) (1990)	13.3

EXTENT AND PATTERNS OF DRUG USE

15.	Lifetime prevalence of drug use among 12 – 24 year-olds, (%) (1992)	8 – 11
16.	One-year prevalence of drug use among 12 – 24 year-olds, (%) (1992)	1.5 – 2.5
17.	Number of dependent users	n.a.
18.	Share of males among dependent users, estimate, (%)	n.a.
19.	Estimated number of dependent heroin users	n.a.
20.	Share of persons under 20 years among dependent users, (%)	n.a.

CONSEQUENCES OF DRUG USE

21.	Percentage of injectors of dependent users	n.a.
22.	Cumulative AIDS cases per 100,000 people (1995)	16.2
23.	Share of IDU-related AIDS cases in 1995, (%)	n.a.
24.	Drug-related deaths per 100,000 people	n.a.
25.	Share of under 25 year-olds of all deaths, (%) (1991)	21.8
26.	Share of under 25 year-olds of drug-related deaths, (%)	n.a.
27.	Annual trend in the number of drug-related deaths, (%)	n.a.

ILLICIT DRUGS MARKET

28.	Price of heroin at retail level, US$/g (1994, not pure)	100 – 120
29.	Price of cocaine at retail level, US$/g (1994, not pure)	15 – 60
30.	Price of amphetamine at retail level, US$/g (1994, not pure)	n.a.
31.	Price of cannabis at retail level, US$/g (1994, not pure)	2
32.	Consumption expenditure on illicit drugs, US$ million	n.a.
33.	Consumption expenditure on heroin, US$ million	n.a.

CRIME, LAW ENFORCEMENT AND DRUG POLICY

34.	Annual trend in the number of seizures, (%) (1990 – 1994)	n.a.
35.	Retail market value of seized drugs, US$ million	3,140
36.	Offences of acquisitive crime per 100,000 people	n.a.
37.	Offences of violence per 100,000 people	n.a.
38.	Persons arrested for drug offences per 100,000 people (1995)	3.1
39.	Annual trend in the number of drug law offences, (%) (arrests 1991 – 1995)	+12
40.	Share of possession offences out of all drug law offences, (%)	Possession for personal use not an offence
41.	Share of incarcerations of all drug law offenders found guilty, (%)	n.a.
42.	Average length of prison sentences for drug-related offences, months	n.a.
43.	Share of prevention and treatment of the public drug control budget, (%) (1995)	<1

For sources and/or basis of calculation please see the end of this country profile

1. BACKGROUND

Colombia's population was estimated at 34.5 million in 1994. Migration from rural areas to the cities is continuing and by the year 2000 it is estimated that 77% will live in urban areas. The population structure is heavily biased towards youth – 14.3 million inhabitants were under 18 years of age in 1993. The population is estimated to be 1% South American Indian, 4% of African origin, 25% white, 50% mestizo (part Indian, part white) and 20% mulatto (part African, part white).

The health status of the Colombians is improving, and life expectancy at birth has risen from 64 years at the end of the 1970s to 69.5 in 1994. Health accounted for around 13% of total public expenditure in 1990. The illiteracy rate among those over ten years is 12.2%. Elementary school education has been completed by 81% of the population. However, the situation is improving, and in 1990, 93% of the relevant age group were enrolled in primary schools compared with 84% in 1965. Education accounted for 21% of total public expenditure in 1990.

From 1989 – 1993 there was a steady increase in the labour force and the number of people in employment. The unemployment rate fell sharply in 1993, which was in part attributable to the construction boom; the rate has risen again since, with weak construction activity and falling coffee prices. In 1995, the unemployment rate stood at 8.7%.

Guerrilla groups have been active in Colombia for several decades. Violent action has been used by several groups as an alternative to democratic means to bring about their visions of a better society. The guerrillas are involved in the illegal drug trade, extortion, and kidnapping. Nowadays, with many guerrilla movements motivated more by profit than ideology, a political agreement seemed unlikely to provide a complete solution to the problem (Economist Intelligence Unit, 1996).

The recourse to violence to resolve conflicts, as well as the presence of guerrilla movements that control parts of the country, are factors used to explain the apparent 'comparative advantage' and predominant position of Colombian criminal syndicates in the South American illicit drug industry. Other important factors are the traditional import – and more important – export of contraband; the early-acquired knowledge of the foreign exchange black market and money laundering; the geographical location and characteristics of Colombia; the business tradition of seeking high short-term profits; and the legal and illegal migration of Colombians to the USA (Thoumi, 1995).

Ernesto Samper Pizano of the Liberal Party won the presidential election in June 1994. Mr. Samper's term in office has been dominated by allegations that his election campaign received donations from the Cali drug cartel, and concern over the allegations has tended to overshadow the administration's success in capturing all the seven leaders of the Cali cartel in 1995 – 1996. In June 1996, the liberal majority congress exonerated President Samper of any accusations of having accepted Cali cartel funding for his 1994 presidential campaign.

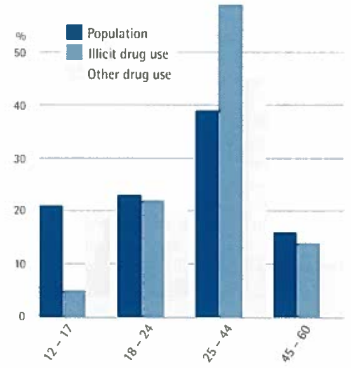
United States-Colombian foreign relations deteriorated in 1995 – 96, owing to the US government's demands for further success in drug control activities. The US government decided to 'decertify' Colombia according to the certification procedure that is currently applied to 31 countries alleged to be major drug producing or transit States. The decision was based on the evaluation of the countries' drug control activities during the previous calendar year.

2. EXTENT AND PATTERNS OF DRUG USE

In 1992 the Colombian government conducted a national survey on the prevalence of drug use among the population aged between 12 and 60 years. The survey divided drug use into two main categories – 'illicit drugs' (cannabis, heroin, cocaine and the coca derivative basuco containing coca paste), and 'other psychoactive substances' (tranquillizers, sedatives, stimulants and inhalants).

The 25 – 44 age group was clearly the one that most often admitted having tried illicit drugs at least once; however, the highest prevalence percentages correspond to the 18 – 24 year-olds in the

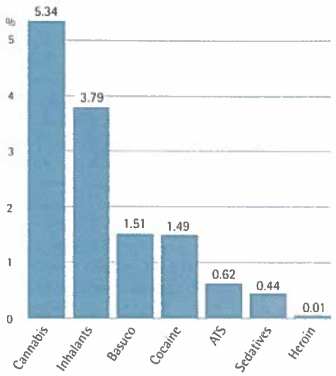
Fig. 1: Age structure of those who have tried drugs compared to the general population.



Percentage of the age group of the total population in question

Source: National Narcotics Council, 1995; UN Population statistics, 1993.

Fig. 2: Lifetime prevalence of particular drugs in Colombia 1992.



Source: Duque Ramírez, Rodriquez Ospina, Cecilia Rivero, Huertas Campos, 1993.

case of other psychoactive substances (see Fig. 1). Three-quarters of those admitting lifetime use of an illicit drug were male. However, two thirds of those having tried other psychoactive substances were female. Women used tranquillizers, sedatives and stimulants more often than men. The use of inhalants was equally common among males and females. Drugs are also more often tried in urban areas than in the countryside – both drug categories reach their highest prevalence rates in cities with 1,500,000 inhabitants or more.

Regarding education level, people with incomplete university studies showed the highest prevalence rates. This group included those who were studying by the time of the survey and those who had given up their studies. People with completed university degrees had lower prevalence rates than those with uncompleted studies, but they nonetheless came second highest. Working status also showed that people who were not working had higher prevalence rates than the working population. A multivariate analysis conducted by the survey group confirmed that the risk of drug use is at its highest for males between 18 to 24 years old, who reside in big cities and live off income other than salary or wages.

Annual and monthly prevalence figures show that cannabis is the drug used most often, followed by inhalants, basuco, and cocaine. Stimulants, sedatives and heroin have been used by less than 1% of the population according to this study (see Fig. 2). It should be noted that all the figures are relatively low compared to prevalence rates in many other countries. Another national survey carried out during the same year produced similar results (UNDCP Country Framework 1996 – 97).

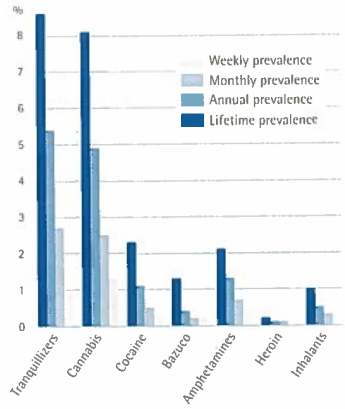
A national survey carried out among university students (ICFES, 1995) shows that this group has considerably higher prevalence rates than those in the general population surveys. Tranquillizers[1] and cannabis are almost as frequently tried and used. Tranquillizers have a slightly higher lifetime prevalence than cannabis (8.6% compared to 8.1%). Of those surveyed 1% admitted having used

1) This survey did not distinguish between prescribed and non-prescribed use.

tranquillizers during the previous week, whereas 1.3% had used cannabis. The coca-based drugs (basuco and cocaine) are together the third most prevalent drug, followed by amphetamine-type stimulants (ATS), inhalants and heroin. Heroin use appears very low, as in the general population study, but its trend seems to be increasing. Tranquillizers are the only drug for which use is reported to be more frequent among female students (see Fig. 3).

The attitudes of students towards different aspects of drug policy were also surveyed. The most uniformly favourable opinions concerned use of funds for prevention and rehabilitation. The majority of students were also against legalization or non-prohibition of cocaine, basuco and cannabis, as well as legalizing production and exports of cocaine and cannabis. Most respondents did not accept the use of herbicides in eradication (currently in use in Colombia) nor foreign military support for law enforcement. The way the government was handling the drug problem was found partially or totally acceptable by 39.8% of respondents, whereas 54.3% were partially or totally against it (see Fig. 4). The attitudes varied according to user status. Non-users of drugs were significantly more negative towards legalization of use, production and exports of drugs than persons that had tried drugs. A UNDCP-financed project studied drug use among prisoners in Colombia. Of those questioned, 39% admitted having used illegal drugs at least once in their lifetime, but the report considers this to be a minumum estimate,

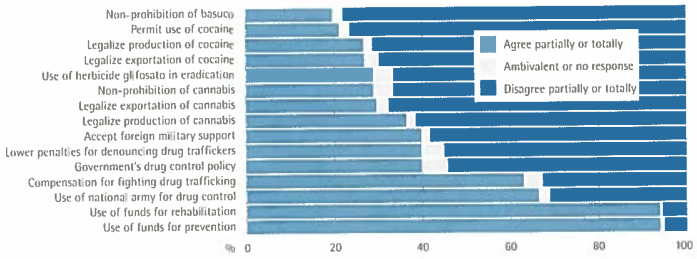
Fig. 3: Drug use among university students.



Source: ICFES, 1995.

owing to mistrust among prisoners regarding information confidentiality. Three-quarters had inititated drug use outside prison, and a quarter had started using drugs in prison (National Correctional Institute, INPEC, 1996). Apart from students and prisoners, other high risk groups include commercial sex workers, people living in marginal urban areas, street children, young law offenders and miners.

Fig. 4: Attitudes of Colombian university students.



Source: ICFES, 1995.

Although the available information may not indicate clear trends, some hypotheses can be made:

- There are only few reports of heroin use. However, it is possible that the cultivation of opium poppy and heroin production in Colombia will in time translate into local heroin abuse;
- Cocaine and basuco use is not growing, but decreasing;
- Use of tranquillizers may be increasing rapidly, especially among females and in larger cities;
- Cocaine is used by middle and upper income groups;
- Inhalants use seems to be rising;
- The number of drugs available in the illicit market is increasing; and
- Polydrug use seems to have become more frequent.

3. CONSEQUENCES OF DRUG USE

By 1994 the estimated number of HIV-infected adults was 40,000. At the end of 1995 the cumulative number of AIDS cases reported to WHO was 5,763. The estimated adult HIV rate is 213 per 100,000 population aged 15 – 49, which is relatively high (double the rate of Australia).

The proportion of IDUs of all transmissions of the HIV virus is not known, but it is likely to be low because of the very low number of drug injectors in Colombia. About 80% of all the cases are attributed to hetero- and homosexual transmission, with less than 20% due to blood transfusion, mother-to-child transmission and needle sharing (WHO/PAHO in UNDCP 1996a).

In 1990 over 90% of persons in treatment were dependent on coca paste (i.e., basuco, UNDCP 1996b). The *Linea Directa* help-line has gathered information on the consultations made in 1987 – 1994, mainly from the capital area of Bogota. Most calls have been related to cocaine, basuco and cannabis use. However, the following trends emerge – ATS, depressants, inhalants and hallucinogens are growing in importance, although they are still marginal drugs. Cannabis, cocaine and basuco are loosing their share of consultations. It is noted in the literature that help lines are not accessible to the whole of the Colombian population, nor are they considered by everybody as appropriate means of getting help; therefore, it may be an unreliable source for information on the trends in drug-related health problems (e.g., see Perez Gomez, 1994).

The 1993 – 1994 data classify the help-line calls by motive – over three-quarters of the calls during that period were motived by a crisis or a need for treatment (CIDNE, 1995). Therefore, the emergence of new drugs in the help-line may indeed indicate diversification of the drug problem in Colombia.

DAI and DATI

The Drug Abuse Index shows that cocaine in its different forms is the drug which causes most costs to Colombian society. However, the use of cannabis and depressants are widespread and are often mentioned in telephone help-line consultations. Opiates, mainly heroin, seem to be the only drug that is injected. Inhalant use is also common in Colombia's lower social strata and it ranks as the third drug of importance (see Fig. 5).

Fig. 5: Drug Abuse Index (DAI) – Colombia.

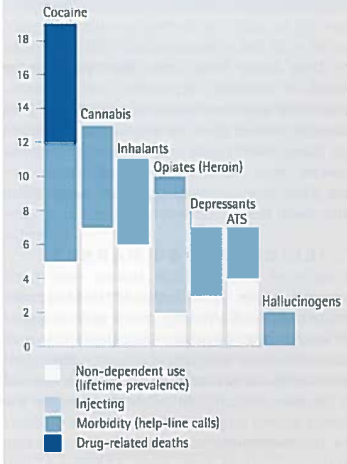
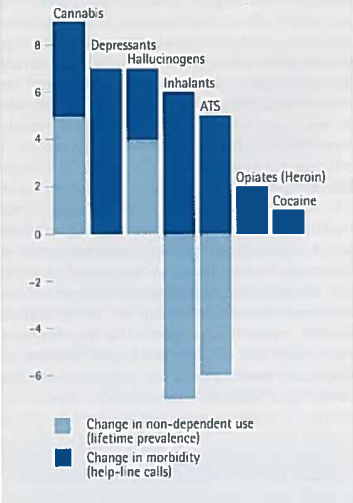


Fig. 6: Drug Abuse Trend Index (DATI) – Colombia.



The Drug Abuse Trend Index depicts the steady growth of cannabis-, depressant- and hallucinogen-related problems. Opiates are mentioned with increasing frequency in the help-line calls. It seems less 'fashionable' to use inhalants and stimulants; however, they are often mentioned in help-line calls. Cocaine use is relatively stable compared to other drugs (see Fig. 6).

4. ILLICIT DRUGS MARKET

Colombia is the global centre of illicit cocaine production and trafficking, and a major supplier of heroin and cannabis. Coca bush is mainly cultivated in the southern and central regions of the country. Cultivation has continued to increase to the point that, in 1995, Colombia became the world's second largest producer of coca. According to government sources, the detected area under cultivation rose from 12,000 – 13,000 hectares in the early 1990s to 39,800 hectares in 1994 and 45,000 hectares in 1995 (UNDCP, 1996b).

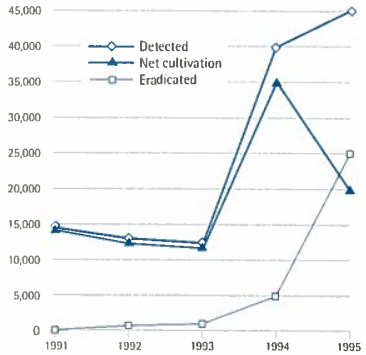
The eradication of the coca bush was increasingly undertaken during 1994 – 1995 – from 4,900 to 25,400 hectares. However, net cultivation continued to increase (see Fig. 7). Opium poppy is cultivated on the mountain sides in the northeastern part of Colombia; this cultivation probably started in the late 1980s in the country's marginal agricultural zones, when coffee prices fell. The area of poppy cultivation detected fell by two thirds during 1994 – 1995. According to US government sources, cultivation estimates were revised downwards after the first-ever scientific survey of opium poppy cultivation was carried out in 1995 (UNDCP, 1996b).

Eradication of opium poppy was around 5,000 hectares, both in 1994 and in 1995. However, with the adjusted cultivation estimates the result of the eradication efforts seems impressive – 78% of the detected opium poppy was eradicated in 1995 (UNDCP, 1996b). The area under cannabis plant cultivation fell sharply in a few years from approximately 30,000 hectares in the 1970s to a couple of thousand hectares. Cannabis cultivation was estimated at 5,000 hectares in 1995. The dramatic decline in the cultivation of cannabis plant may be attributed to the rise in cannabis cultivation in the USA, which was the main market for Colombian cannabis, as well as to the consolidation of the comparative advantage of producing more profitable drugs, such as cocaine, and to a lesser extent, heroin, by the Colombian drug cartels (UNDCP, 1996b).

There is a significant variation in the Colombian and US government estimates on the production capacity of the Colombian cocaine industry. In 1995, domestic cultivation alone would have been equivalent to 80 tonnes of cocaine according to US sources, whereas the Colombian government estimated that the correct figure was 356 tonnes.

One indicator of the extent of the manufacturing (and of control activities) in Colombia is that during the 1990 – 1994 period, Colombia seized more precursors per capita of the population than any other country in the world. The number of laboratory detections per capita was the second highest in the

Fig. 7: Detected, eradicated, and net cultivation of coca bush, 1991 – 1995 (hectares).



Source: UNDCP Country Drug Profile, 1996.

world. Precursor chemicals originate mainly from Europe, the USA, China, Brazil, and from other South American countries. Colombia also ranked first in the world for the Illicit Drug Supply Index (see Part 1). The purity of both cocaine and heroin is high in Colombia, which may reflect the fact that the great majority (85% according to Colombian authorities) of production is destined for export. The prices of cocaine and heroin have decreased during the last 2 – 3 years.

Drug seizures in 1994 can be valued both at local wholesale and retail values. The wholesale value for cocaine, heroin, morphine and cannabis seizures was US$160 million, whereas local retail value would have been US$3.1 billion according to the price data reported to the UNDCP by the Colombian government. The former figure approximates the replacement cost for traffickers, whereas the latter is approximately equivalent to the commercial value of the seizures if sold for domestic use. However, these figures are extremely tentative while 'wholesale' and 'retail' may be insufficient concepts to describe the several levels and transactions inside and between the drug manufacturing and trafficking organizations in Colombia. The value of the drug seizures would be even higher if it were calculated in terms of wholesale or retail prices of a destination country, e.g., the USA, which is the main destination of the Colombian drug production. However, the same drugs are also trafficked to Europe.

The annual income of Colombian drug trafficking has been gauged by several researchers, who suggest that illegal drug industry profits have fluctuated between US$2 and 5 billion per year. These estimates are based on Colombian value added (i.e., difference of export prices and domestic costs of cocaine manufacturing and trafficking) and are likely to underestimate the actual profits of Colombians involved in the illegal drug business in the USA, Bolivia, and Peru (Thoumi, 1995). Furthermore, the accumulation of wealth to drug traffickers allows them to influence the normal development of the Colombian economy. Thoumi (1995) suggests that yearly inflows[2] of 'drug money' could be comparable to the size of the entire private sector investment in Colombia.

5. CRIME AND LAW ENFORCEMENT

Violent deaths accounted for 28% of all male deaths in 1991, concentrated in the 15 – 34 age group (WHO 1995).

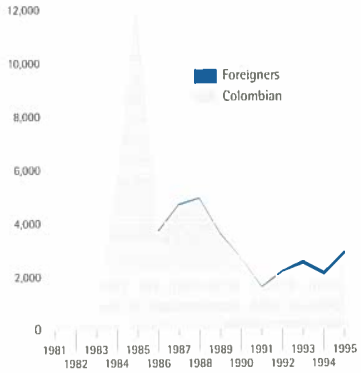
Drug use and acquisitive crime are closely related in Colombia according to the study carried out by the National Correctional Institute (1996). It was also shown that persons using drugs were detained more often than others, the reason being that drug users tend to commit more visible crimes than others.

There were around 30,000 persons in prison in Colombia in 1995, one fifth of whom were convicted of drug-related offences. Annual arrests for drug-related offences rose to a record level in the mid-1980s – around 12,000 persons in 1985 – after the crackdown that followed the assassination of the minister of Justice, Rodrigo Lara Bonilla, by

2) The inflow of 'drug money' is not necessarily equal to annual export income, while a considerable amount of capital is estimated to have been deposited abroad. Drug capital is very volatile and it can enter or leave the country instantly if the economic policy concerning monetary investments changes. UNDCP's Colombian field office estimates that around one third of the illicit income is repatriated.

drug traffickers in 1984. On average, 2,300 persons were arrested as suspected drug traffickers in Colombia in the 1990s (CIDNE, 1996). The share of foreigners has been very low among the persons arrested. Of the cumulative arrests from 1981, 1.3% were foreigners. In 1995, their share had grown to 4.2% (see Fig. 8). Drug crime seems to be age-specific in Colombia: 89% of the persons convicted of drug law offences were 25 – 29 year-olds in 1994. Of the total of convictions, 72% were related to cocaine.

Fig. 8: Persons arrested for drug law offences.



Source: Direccion Nacional de Estupefacientes, 1996.

A study conducted in Colombian prisons showed that 39.3% of the prisoners admitted having used drugs at least once in their lifetime. Of these consumers 93.9% were male[3], and the most often used drugs were cannabis (69% of the surveyed), basuco (27%), and cocaine (14%, report of the National Penitentiary Institute to UNDCP). Of the 133 prisoners attending treatment in 1995, most were basuco users and 18 to 45 years old (CIDNE, 1996).

6. DRUG POLICY

In 1995, the Colombian government planned to disburse nearly US$1bn, or 4.9% of its national budget, to control illicit drug production and trade. The largest share of drug control funds is allocated to the Ministry of National Defence, which was responsible for 91% of the total related drug expenditure in 1994 and 86% in 1995 (National Narcotic Council, 1995).

Only a small share of the total, less than 1% of the overall government drug control budget, is being spent on demand reduction.[4] The federal government's expenditure on demand reduction is supported by local governments, NGOs and international cooperation.

UNDCP assisted Colombia's drug control programmes in 1993 by contributing approximately US$3.5 m, US$4.7 m in 1994, and US$5.3 m in 1995. UNDCP's expenditure in 1995 was divided as follows: 42% to alternative development, 49% to demand reduction, and 9% to control measures.

A revised National Plan for Drug Control in Colombia was approved in 1995. The declared objective of the new policy is systematically to confront and reduce the causes and the effects of the abuse, production and trafficking of drugs through community participation initiatives that effectively link the civil society to the solution of the problem.

The national plan foresees improvements in the following areas:

- administration of justice
- control and interdiction
- alternative development
- prevention and rehabilitation
- international cooperation
  (National Narcotics Council 1995).

In Colombia, possession of illicit drugs for personal use is not a criminal offence. The maximum penalty for drug trafficking is twelve years of imprisonment. However, a 12-year sentence may be reduced to one and a half years on grounds of confession of the crime, collaboration, or good behaviour while incarcerated (UNDCP, 1996c). The crime of running a criminal organization is punished with imprisonment of between 30 and 50 years, or 40 and 60 years under aggravating circumstances (UN 1994).

3) Two thirds of all the inmates were male.
4) The estimate is based on the resources allocated to Ministry of Health, Ministry of Education, Ministry of Communication, Colombian Institute of Family Welfare and the National Rehabilitation Plan compared to the total. The figure would be under 1% even if all the allocations to regional departments and to two mayor's offices would be included in the demand reduction funds.

SOURCES AND/OR BASIS OF CALCULATION FOR THE SUMMARY STATISTICS

1. – 3., 5., 6.	UN 1996
4., 7. – 14.	UNDP 1995, 1996
15., 16.	Duque, Huertas 1993
22.	UNAIDS 1996
25.	WHO 1995
28., 29., 31., 35., 44.	UNDCP Annual Report Questionnaires database
38., 39.	CIDNE, 1996
43.	National Narcotic Council 1995

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Italy • Summary Statistics

BACKGROUND

1.	Population (1994)	57,193,000
2.	Population growth rate, (%) (1990 – 1994)	-0.2
3.	15 – 24 year-old population (1994)	9,100,000
4.	Share of urban population, (%) (1993)	67
5.	Deaths/1,000 (1994)	9.5
6.	Births/1,000 (1994)	9.3
7.	Real GDP, US$ per capita (PPP$ 1993)	18,160
8.	HDI rate (1993)	0.914
9.	HDI rank (1993)	20
10.	Real GDP per capita (PPP$) rank minus HDI rank (1993)	0
11.	Unemployment rate, (%) (1994)	11.8
12.	Social security benefits as % of GDP (1992)	11
13.	Share of education of total public expenditure, (%)	n.a.
14.	Share of health of total public expenditure, (%) (1988 – 1991)	14.8

EXTENT AND PATTERNS OF DRUG USE

15.	Life time prevalence of drug use, (%)	n.a.
16.	One-year prevalence of cannabis use, (%) (1994)	1.4
17.	Number of dependent users, estimate (1995)	170,000 – 416,000
18.	Share of males among dependent users, (%) (from drug-related deaths in 1995)	89
19.	Estimated number of dependent heroin users (1995)	150,000 – 370,000
20.	Share of persons under 20 years among dependent users, (%) (1994)	4

CONSEQUENCES OF DRUG USE

21.	Percentage of injectors of dependent users (treatment clients, 1995)	89
22.	Cumulative AIDS cases per 100,000 people (1995)	55.7
23.	Share of IDU-related AIDS cases in 1995, (%)	67.3
24.	Drug-related deaths per 100,000 people (1995)	1.9
25.	Share of under 25 year-olds of all deaths, (%) (1991)	2.3
26.	Share of under 25 year-olds of drug-related deaths, (%) (1995)	19.3
27.	Annual trend in the number of drug-related deaths, (%) (overdose, 1991 – 1995)	-9.2

ILLICIT DRUGS MARKET

28.	Price of heroin at retail level, US$/g (1990 – 1994, not pure)	90 – 150
29.	Price of cocaine at retail level, US$/g (1990 – 1994, not pure)	95 – 140
30.	Price of amphetamine at retail level, US$/g	n.a.
31.	Price of cannabis at retail level, US$/g (1994, not pure)	6
32.	Consumption expenditure on illicit drugs, (coc., her., cann., 1990 – 1994), US$ million	6,800 – 13,400
33.	Consumption expenditure on heroin, US$ million (1994)	5,400 – 9,000

CRIME, LAW ENFORCEMENT AND DRUG POLICY

34.	Annual trend in the number of seizures, (%) (1991 – 1995)	-1,0
35.	Retail market value of seized drugs, US$ million (coc., her., cann., 1994)	1,200 – 2,600
36.	Offences of acquisitive crime per 100,000 people (1990)	570
37.	Offences of violence per 100,000 people (1990)	40
38.	Persons found guilty for drug offences per 100,000 people (estimate, 1994)	450
39.	Annual trend in the number of drug law offences, (%) (1990 – 1994, open proceedings)	+6.1
40.	Share of possession offences of all drug law offences, (%)	Possession for personal use decriminalized
41.	Share of incarcerations of all drug law offenders found guilty, (%) (1994, Art. 73)	42
42.	Average length of prison sentences for drug-related offences, months (1994)	6
43.	Share of prevention and treatment of the public drug control budget, (%)	n.a.

For sources and/or basis of calculation please see the end of this country profile

1. BACKGROUND

Regional development differences are considerable in Italy, dividing the country into prosperous North and less economically developed South. The south of Italy, known as the Mezzogiorno, covers 40% of the country's total land area. By 1991 the official unemployment rate in the south was 20%, while it was 10.9 for the whole country (Economist Intelligence Unit, 1994).

In mid-1994 the population of Italy was 57.2 million. During the 1980s and 1990s population growth was minimal. There are 1.4 million immigrants in Italy, many of whom are from countries such as Egypt, Ethiopia and the Philippines (Economist Intelligence Unit, 1994). During the 1990s Italy tried to curb illegal immigration with various measures, such as visa requirements, expulsions, introduction of seasonal work permits, etc. (Economist Intelligence Unit, 1994).

Most Italians attend the state school system. There are also some private Roman Catholic schools. School attendance is compulsory between the ages of six and 14 (Economist Intelligence Unit, 1994).

A state-run health service was brought into being in the late 1970s, replacing the previous system under which private health care had been largely financed by a state insurance system. The health service is largely run by the regions and local health districts. In an attempt to curb public health costs, the government introduced new health charges in 1988. Some population groups were exempted from the new charges, including people with AIDS and those undergoing cures for drug dependency (Economist Intelligence Unit, 1994). Social security transfers range from the generous to the totally inadequate. It is often claimed that transfers are influenced by the clientelistic system (Economist Intelligence Unit, 1994).

Italian youth unemployment rate is the highest inside the European Union, reaching 48.2% in 1994 (Eurostat, 1995). The basic unemployment benefit is so small as to be insignificant. There can be little doubt that in parts of southern Italy, where there is no legitimate work available, many young people are drawn into petty crime. The lack of unemployment benefit and shortage of training opportunities provide fertile ground for recruitment by criminal organizations. (Economist Intelligence Unit, 1994).

Italy is also troubled by the presence of well-established organized crime. Criminal organizations operate in a diversity of legal as well as illegal business sectors, which adversely affects the business opportunities of law-abiding citizens. The effects of organized crime range from the micro-level of small businesses or individuals up to macro-indicators of the whole nation, such as savings, taxation, income distribution, investments, and international competitiveness.

2. EXTENT AND PATTERNS OF DRUG USE

There are few studies available on the prevalence of drug use among the general population in Italy. Therefore, population estimates have to be mainly based on treatment, mortality and crime statistics. However, the Italian government has submitted some estimates to UNDCP. According to ARQ answers, a prevalence of 1.4% annual use of cannabis was estimated in 1994, which in absolute figures gives 600,000 to 800,000 persons. The annual prevalence of heroin use was estimated at 0.3% (130,000 – 170,000 persons). Cocaine was used during the past year by 0.06 per thousand, coca paste by 0.18 per thousand, hallucinogens by 0.13 per thousand, and benzodiazepines by 0.02 per thousand (ARQ 1994, UNDCP Italy Country Drug Abuse Profile).

Sample surveys are also conducted annually among military conscripts – males aged about 18 – and among regular army troops. The observed prevalences of the military conscript surveys are obtained by random samples of blood or urine. The 1994 and 1995 results are reported in Table 1. All the prevalences show increasing trends, except that of cocaine which is fairly stable. Amphetamine-type stimulants (ATS) account for the highest increase (+333%) but the prevalence rate is still low. Also the prevalence of cannabis in 1995 was more than double that of 1994 (Presidenza del Consiglio dei Ministri, 1994, 1995).

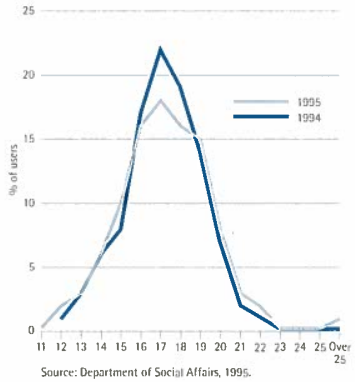
Table 1. Observed prevalence of drug use among military conscripts.

Year	1994		1995	
	Number tested	% positive	Number tested	% positive
Cannabis	15,059	1.33	18,190	2.71
Opiates	14,842	0.23	18,061	0.27
Cocaine	14,381	0.17	17,961	0.16
ATS	5,753	0.03	3,109	0.13

Source: Department of Social Affairs, Annual Report to Parliament 1995.

The regular army troops' survey reports age at first use for different substances. The age distributions for cannabis and opiates in 1994 and 1995 are reported in Fig. 1 and Fig. 2. Other estimates for Italian heroin and cocaine abusers are included in the US Department of State (1996) data: 150,000 heroin-dependent users and 200,000 cocaine abusers in 1995 (Presidenza del Consiglio dei Ministri, 1994, 1995).

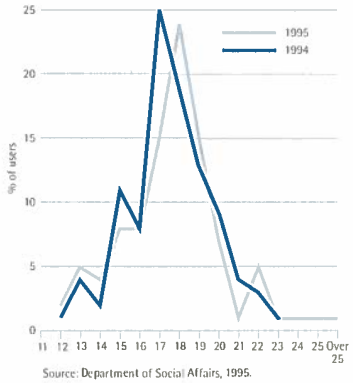
Fig. 1: Age of first use of cannabis among regular army troops, 1994 and 1995.



Source: Department of Social Affairs, 1995.

In a school survey conducted in northern Italy in 1994, 29.1% of 15 – 19 year-old high school students admitted having used cannabis at least once in their life. In 1995, 33.6% of a survey of the same age group had tried cannabis, while 8.9% reported a willingness to try ecstasy (Gerra, 1996). The Ministry of Health requires biannual data from the state services for the treatment of dependent users, from private agencies for the treatment and rehabilitation of dependent users, and on the numbers and characteristics of the patients they were in charge of at the time of the survey. More and more dependent users are requesting treatment in government treatment agencies – the numbers more than doubled in four years, reaching 72,000 in June 1995. In 1995 fewer dependent users (13,495)

Fig. 2: Age of first use of opiates among regular army troops.



Source: Department of Social Affairs, 1995.

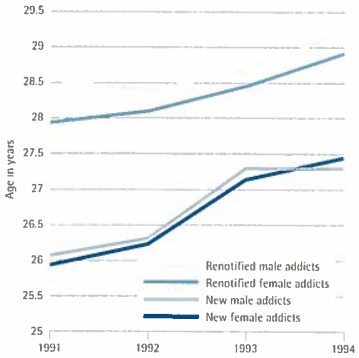
asked for help from private treatment agencies (mainly residential communities) than in 1994 (Ministero della Sanità, 1994, 1995).

Heroin causes the majority of treatment requests, although its share was smaller in 1994 than in the previous years (88%). The use of cocaine was

negligible as a primary substance (1.9%) but not as a secondary one (12.7%). The same pattern applies to cannabis, alcohol and benzodiazepines. This confirms the reports of treatment experts that most dependent users use several substances together or on different occasions (Ministero della Sanità, 1994, 1995).

Morphine shows the highest proportional growth in terms of primary substance mentioned in treatment requests. However, it was still a marginal drug with its 0.22% share in 1994. ATS and cocaine have also risen as primary substances of abuse among treatment clients. ATS have gained importance as secondary drugs; benzodiazepines have lost ground both as primary and secondary drugs. The drug-dependent population seems to be growing older. During 1991 – 1994 the average age of treatment clients rose – mostly among female dependent users, by 1.5 years among dependent users registered for the first time – and by one year among renotified dependent users. Among male dependent users, the average age rose by 1.2 years and 0.7 years, respectively. These averages move within the age group 25 – 29, which is the most common one among those in need of treatment (see Fig. 3) (Ministero della Sanità, 1994, 1995).

Fig. 3: Average age of new and relapsed drug addicts in treatment.



Source: Ministry of Health, 1996.

3. CONSEQUENCES OF DRUG USE

The Ministry of Health reports the different forms of treatment given to addicted persons by government agencies. In recent years the main development has been the increasing trend of methadone provision, in particular long-term maintenance. Data from the Ministry of the Interior show that addicts in methadone treatment represented by far the greatest share of the total in the 1980s. From 1990 to 1993 it decreased, when it began to rise again. However, no distinction is made between medium- and long-term methadone treatment (Ministero della Sanità, 1994, 1995).

The two main infections among treatment clients have been HIV and hepatitis. It seems that the efforts of recent years to give information about HIV have produced some results, as the trend among both males and females, and among new and old treatment clients is decreasing. However, hepatitis infection rates show no signs of decreasing. There is no difference between males and females regarding hepatitis infection, while HIV infection is much more frequent among females than males. This may be due to the fact that the HIV infection for sexual intercourse is higher from male to female than vice versa and because some female dependent users become prostitutes to get money for drugs (the difference between males and females is statistically highly significant) (Ministero della Sanità, 1994, 1995).

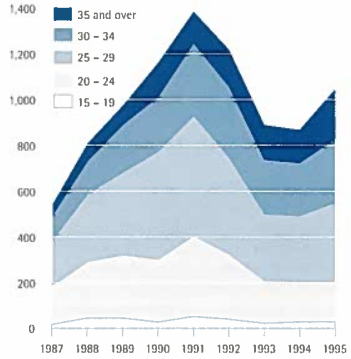
According to data from the Ministry of Interior, elaborated by the Ministry of Health (1989 – 1992), at least 99% of deaths were due to heroin alone; or to heroin and other substances. Since 1992, more than 12% of drug-related deaths have been classified as 'heroin and other' (Ministry of Health, 1991 – 95; Ministero della Sanità, 1994, 1995).

The proportions of different drugs contributing to drug-related mortality are based on blood tests made for a number of the deceased. From 1992 onwards, blood tests were conducted in more than half of all cases.

The drug-related mortality data show first, a new increase in the total number of deaths in 1995 and, second, an increase in the proportion of heroin-related deaths after a couple of years of declining drug-related mortality. Moreover, following the pattern of other years, notification of several dozen cases from 1995 might be delayed to 1996 (see Fig. 4). The reversal of the trend may suggest a new growth of the heroin market, even in the presence of a substantial increase in the use of ATS, such as ecstasy. The average age at death caused by an overdose gradually increased from 1984 to 1991, both for male and female drug users. During 1990 – 1991 the increase in the average age of male deaths was clearly below the values suggested by the linear trend depicted in Fig. 5, which may be another indication of new drugs entering the scene, thus increasing the share of younger age-groups of overdose deaths (Presidenza del Consiglio dei Ministri, 1991 – 1995).

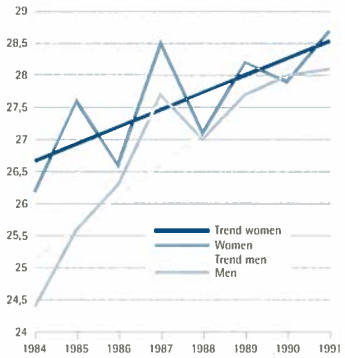
The Centro Operativo AIDS (COA) has published quarterly data on AIDS cases since 1982. These show that more than 60% of cases in 1995 were male. Paediatric cases have been caused primarily by a drug-injecting mother or by a mother infected by an IDU partner. In about 40% of heterosexual cases, transmission is from IDU partners and their share is rapidly increasing. In Fig. 6 the annual incidence of AIDS cases is depicted. The percentages of cases within injecting drug (mainly heroin) users and heterosexuals are graphically represented in Fig. 7 (Instituto Superiore di Sanità, March, June, September, December, 1995).

Fig. 4: Drug-related deaths in Italy.



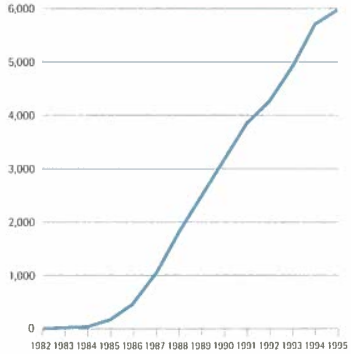
Source: Ministry of Interior, 1996.

Fig. 5: Average age at death for drug users who died of overdose.



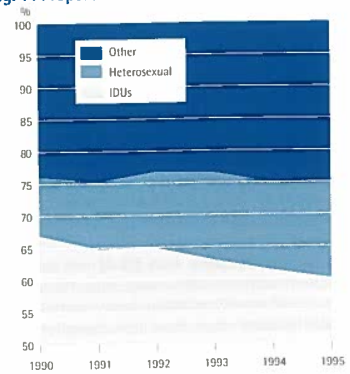
Source: Ministry of Interior, National Statistical Institute.

Fig. 6: New AIDS cases.



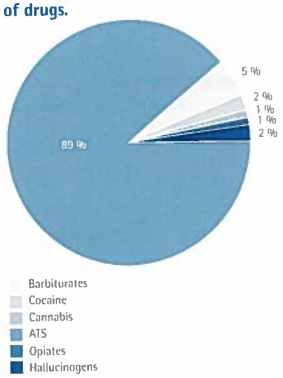
Source: Centro Operative AIDS (COA), Instituto Superiore di Sanità, 1996.

Fig. 7: Proportion of AIDS causes.



Source: Centro Operative AIDS (COA), Instituto Superiore di Sanità, 1996.

Fig. 8: Hospitalizations due to dependent use of drugs.



Source: National Statistical Institute

The incidence and prevalence of AIDS data among IDUs can be used to estimate the magnitude of the number of heroin IDUs. Considering the long incubation period and the mortality rate of IDUs[1], the proportion of IDUs out of the number of all persons who are HIV positive can be calculated at about 75 – 80%. The estimated number of those at risk of infection in the mid-1980s was about 150,000.[2] The expected number of IDUs infected by HIV (75% of 150,000, i.e., 112,000), is more or less 25 – 30% of all IDUs. A conservative estimate can be made by choosing 30%, which gives an estimate for the number of IDUs at 373,000. It is slightly higher than the estimate of 190,000 – 313,000 of intravenous drug users made by Mariani, Guaiana and De Fiandra (1994) for 1992.

The hospital admission data of ISTAT are categorized by cause, age and gender (ISTAT 1995). In recent years, 'dependent use of drugs' has accounted for about 12,000 cases annually. Heroin accounts for 47% of cases, alcohol for a similar amount, the rest being barbiturates, hallucinogens, cocaine, cannabis, and other substances. Fig. 8 shows the distribution of cases other than those due to alcohol use.

DAI AND DATI

The drug-use situation and current trends are summarized in Figs. 9 and 10. The Drug Abuse Index and Drug Abuse Trend Index indicate clearly that opiates (mainly heroin) are by far the most problematic drugs in Italy. Opiates were the only drug type for which there has been an identifiable change in overdose mortality in recent years. Opiates gather more negative than positive trend rankings, which indicates a downturn in its use and consequences. Cannabis is widely used, and is the second most common primary drug among persons in treatment. Cocaine comes second in the death by overdose figures, while problems related to morbidity have the second fastest growth rate. Hallucinogens and inhalants are marginal drugs in Italy, but ATS are growing in importance.

1) More than 10 times the basic rate of the rest of the population of the same age groups on the basis of a cohort study by the epidemiological unit of the Lazio region (Rome and the surrounding area).
2) Estimates obtained from "Multinational scenario analysis concerning epidemiological, social and economic impacts of HIV/AIDS on society", European Union consented action, Project Number PL931723, 1994 – 1997.

Fig. 9: Drug Abuse Index (DAI) – Italy.

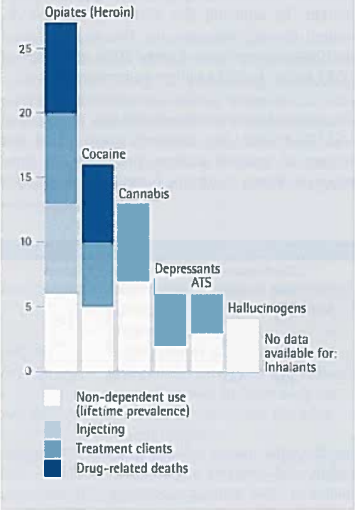
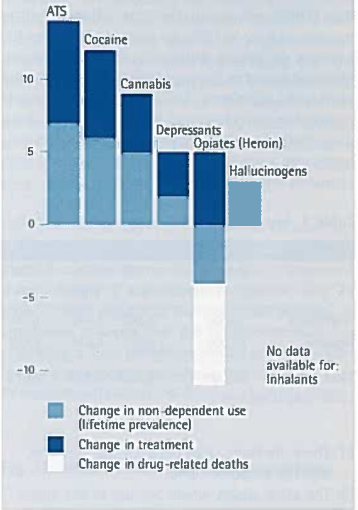


Fig. 10: Drug Abuse Trend Index (DATI) – Italy.



4. ILLICIT DRUGS MARKET

Italy is not a major drug producer, but small amounts of cannabis are grown in southern Italy for domestic consumption. Italian organized crime groups, especially the Sicilian Mafia, the Neapolitan Camorra, and the Calabrian Ndrangheta cooperate directly with South American cocaine cartels and others to facilitate the transit of illicit drugs and the laundering of the proceeds through Italy and the wider European market. Italy's large financial sector provides significant money-laundering opportunities, despite the existence of comprehensive money-laundering legislation.

In recent years, seizures of plant-based drugs have been relatively stable while those of synthetic drugs and LSD increased markedly (see Fig. 11). This might be due to new attitudes of consumers (old and new), or to an emergence of a new illicit market, complementary to those of the plant-based drugs. The new drugs may capture different types of young consumers without replacing earlier drug use. Cocaine seizures increased markedly in 1994, decreasing again in 1995 to a level double that of 1991 (Presidenza del Consiglio dei Ministri, 1991 – 1995).

Cannabis is the drug that accounts for most seizures, both within the country and at the borders (ranging from 73% to 93% of the number of seizures), except for seizures at airports, where in 1995 cocaine accounted for 73% of the total. Heroin is the second most common drug seized at airports (14%). Ecstasy seizures mainly take place within the country (88%), and no seizures have been made at airports. Illicit drug seizure data must be interpreted in the context of the large-scale drug distribution networks operated by Italian organized crime groups to, from and through the

country. Trends in seizure data do not, therefore, shed any light on demand-side trends (Presidenza del Consiglio dei Ministri, 1994, 1995).

Rey (1993) estimated the size of illegal drug markets in Italy in 1990, an estimate based on the number of heroin addicts – 180,000 persons, obtained from the Criminal Police. This agency also produced estimates for numbers of persons involved in trafficking and for quantities of illegal drugs trafficked. On the basis of such data and estimates the total value added was obtained. Such estimates rely on two hypotheses:

(i) There are three steps between the importer and the consumer; and
(ii) The value added, which accrues to the dealer, does not include the value of the substance that is consumed by the dealer himself. This is a frequent phenomenon, at least for heroin dependent users.

The turnover of the heroin market was estimated at US$5.4 billion. It should be noted that if the number of heroin-dependent users were adjusted closer to the other estimates presented in this report, say to 300,000, the turnover of heroin would rise by 67% to US$9 billion.

Reaching a reliable estimate for the cocaine market is even more difficult. The Criminal Police's estimates are based on annual seizures. It is assumed that seizures represent between 5% and 20% of the market. By applying the wholesale price of 85 million lire per kilogram and the retail value of 300,000 lire per gram (purity 70%) estimates of US$1 billion to US$4 billion were reached.

The value of the cannabis market was estimated at US$320 million. The turnover, value added and number of involved persons concerning the three drugs are shown in Table 2. A conservative estimate for the retail market value of seizures for cocaine, heroin, and cannabis amounted to US$550 – 870 million in 1994, without considering different purity levels of police and customs seizures. When these figures are compared to presumed turnover, interception rates estimates of 4.1% – 12.8% are reached.

Table 2. Size of the illicit drug market in Italy.

	Number of persons involved	Total turnover US$ million		Total value added US$ million		Turnover per employee US$ thousands		Value added per employee US$ thousands	
		low	high	low	high	low	high	low	high
Traffickers	10,000	2,240	3,742	1,181	2,341	224	374	118	234
Dealers	55,000	4,512	6,014	1,498	2,338	82	109	28	43
Total	**65,000**	**6,752**	**9,756**	**2,679**	**4,679**	**306**	**483**	**146**	**277**

Source: Guido M. Rey, 1993.

5. CRIME AND LAW ENFORCEMENT

During 1987 – 1990, acquisitive crimes reported to or recorded by police (robbery, theft, burglary) increased 24%, while violent crimes increased 6%. Among violent crimes the largest growth was in murders and attempted murders (66% and 23%, respectively). Burglaries increased the most among acquisitive crimes, namely by 33%. More recent figures are reported in Table 3.

Table 3. Crimes reported to the police January – August 1995.

Crime	Number	% of offenders identified	% in urban areas	Minors involved per crime
Homicide	1,007	29.4	26.5	1.5
Violence	19,510	80.9	44.5	2.3
Theft	1,109,136	6.2	55.6	0.1
Robbery	19,291	21.6	61.3	2.3
Drugs	32,596	94.6	57.3	3.9

Source: ISTAT Statistical Bulletin, 1996.

Italian drug control activities are based on decree No. 309, enacted in 1990. Article 73 determines the sentences and fines for cultivating, producing, refining, trafficking and selling drugs on an individual basis, whereas Article 74 is concerned with the same offences but on an associative basis. Personal drug use and possession of small amounts of any drug were decriminalized as a result of a 1993 referendum.

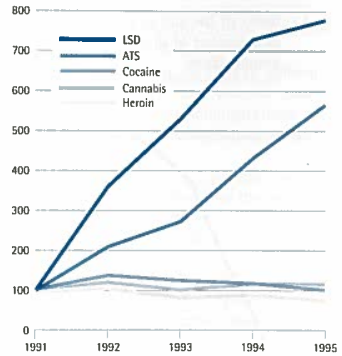
Other Articles mentioned here are:

Art. 76 para 7: Suspension of criminal proceedings due to enrolment in a treatment programme;
Art. 79: Facilitation of drug use;
Art. 82: Instigation, conversion and inducement of minors to illicit drug use;
Art. 86: Expulsion of foreigners for drug-related offences;
Art. 90: Suspension of prison sentences due to enrolment for treatment of drug addiction; and
Art. 93: Revocation of suspended prison sentences owing to abandonment of a treatment programme.

The number of criminal proceedings relating to Art. 73 increased rapidly after the approval of Decree 309/1990. This trend was reversed in 1993, possibly due to the above-mentioned referendum. The number of criminal proceedings for Art. 74 offences has been constantly increasing. The numbers of restrictive measures pertaining to 'crimes of drug addiction'[3] and the number of expulsions of foreigners (Art. 86) are increasing, while the number of restrictive measures towards drug-dependent users has been decreasing since 1993, thus showing a trend very similar to that of criminal proceedings for Art. 73 offences (Ministero di Grazia e Giustizia, 1996). The influence of the 1993 referendum can also be observed by looking at the share of restrictive measures against drug-dependent users within the category of measures pertaining to 'crimes of drug addiction'. By comparing the values of this ratio over the 1990 – 1992 period with the values over the later periods by means of a standardized normal test on proportions, it was found that the difference between the two values (64% and 52%) is statistically significant[4], i.e., the values are too different to have been produced by chance without a change in a background variable, which in this case is the legislation (Ministero di Grazia e Giustizia, 1996).

The same can be observed for the ratio between the number of suspended criminal proceedings revoked and the number of criminal proceedings suspended due to choice of a treatment programme (Art. 76 para. 7) with respect to the same two periods[5]. In conclusion, it seems that the 1993 referendum has resulted in a more permissive control policy concerning drug-dependent individuals, but not in the case of traffickers (Ministero di Grazia e Giustizia, 1996).

Fig. 11: Index of the number of drug seizures.



Source: Ministry of Interior, Department of Public Security, Bureau for the Coordination of Police Forces, 1996.

3) A restrictive measure can be prison sentence, house arrest, or parole sentence. 'Crimes of drug addiction' are petty crimes carried out by dependent users. Before the 1993 referendum they used to be possession offences, and after the referendum they have been mostly minor drug sale offences.
4) Standardized normal distribution test produce a value z=38.9 that is highly significant.
5) The two values, 0.24 and 0.10, produce a standardized normal distribution test value z=7.8, again statistically highly significant.

The trends of the number of persons held in prison and the number of dependent users in prison are similar as can be seen in Fig. 12. However, since 1992, the growth rate in the trend of dependent users in prison has decreased more rapidly than that of all prisoners so that the indexed proportion of detained dependent users out of all prisoners (the third curve in the graph) has been decreasing since 1992 (Ministero di Grazia e Giustizia, 1995).

Regarding HIV seropositivity in prisons, the general situation is slightly improving, although there is cause for concern. Seropositivity is rapidly decreasing within the dependent population, but it is increasing within the non-dependent population (Ministero di Grazia e Giustizia, 1995).

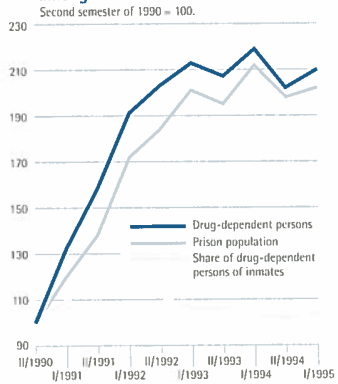
As can be seen by examining the indices of imprisonment of dependent users and of all incarcerations (see Fig. 13.), the trends are similar to those in Fig. 12. However, the reverse trend of the imprisonment of dependent users is even more evident here. The number of drug traffickers or manufacturers sentenced to prison is still increasing, but most of them are not simultaneously dependent as was previously the case. The proportion of drug traffickers or manufacturers within the total number of incarcerations hovered around 35 – 40% from 1991 to 1995 (Ministero di Grazia e Giustizia, 1995).

The proportion of dependent users imprisoned under Art. 73 offences has been decreasing since 1993. Drug-dependent prisoners are mainly heroin addicts (about 79%). This is the drug that in Italy seems to be a primary factor in acquisitive crime and in drug-related crime. The proportion of persons who are illiterate, or without any qualification, is extremely high among dependent users in prison, compared with the same age groups in general. The highest illiteracy rates are among the youngest (Ministero di Grazia e Giustizia, 1995).

The marginal distribution concerning educational level can be compared to the general distribution of the Italian population aged seven and over. Even if the age groups are not comparable, some considerations can be made. Those with higher educational qualifications tend to be less involved in drug problems leading to imprisonment. This may be due to several reasons: (a) better educated persons are not consumers; or (b) they use drugs more safely; or (c) they consume drugs in private homes, not on the streets, and therefore do not draw the attention of law enforcement authorities (Ministero di Grazia e Giustizia, 1995).

Fig. 12: Index of the size of prison population and number of drug-dependent persons among them.

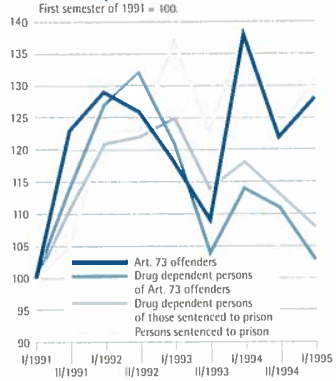
Second semester of 1990 = 100.



Source: Ministry of Justice, 1996.

Fig. 13: Index of prison sentences.

First semester of 1991 = 100.



Source: Ministry of Justice, 1996.

Concerning persons in prison for Art. 74 offences, the Ministry of Justice provides prevalence data. In particular 2,252 persons were in prison on 5 October 1992; 2,509 (11% increase) on 30 September 1993; and 2,958 (18% increase) on 30 September 1994. By far the highest proportion, over 80%, of police investigations are related to sale of drugs. Trafficking represents only 9% of cases. Three-quarters of investigated suspects are arrested. The share of arrested persons has slightly declined since the end of the 1980s (Ministry of Interior, 1995; Presidenza del Consiglio dei Ministri, 1995).

6. DRUG POLICY

The principal objectives of Italian national drug policy within the field of prevention are to alleviate the socio-environmental conditions in which drug abuse flourishes, especially for young people, and to introduce primary prevention programmes within a variety of settings such as family, school, sport and leisure centres, the mass media and the workplace. As regards treatment, priority is given to a harm reduction approach, with particular attention paid to improving diagnostic and treatment methods at the psycho-sociological and pharmacological levels, with the overall aim of reducing the suffering of drug-dependent individuals and the harm they may do to themselves and to society. On the supply side, attention has focused on dismantling national and international trafficking organizations operating within Italy and on the identification, seizure and confiscation of illegally acquired assets. Italy also has a strong commitment to international efforts on drug control, and has long been the largest single donor to UNDCP.

Italian national drug legislation has undergone several changes of direction in the last few years, culminating in the 1993 popular referendum by which drug use for personal consumption ceased to be a criminal offence and users became liable for administrative sanctions only. Penalties for trafficking offences vary according to severity of the offence to between six months and 20 years of imprisonment. A member of a trafficking group is sentenced to at least 10 years of imprisonment. The minumum penalty for leadership of a trafficking group is 20 years in prison.

Each year the National Fund for the Fight Against Drug Addiction financially supports drug abuse prevention and treatment programmes as well as for the recovery and reintegration of drug-dependent individuals into society. Moreover, the Fund gives its economic support to local bodies (municipalities, local health units) for prevention and rehabilitation initiatives, to the regions for training programmes for specialized personnel, and to NGOs for treatment, rehabilitation and reintegration of dependent users into society. The types of projects submitted for financing by the municipal administration are divided as follows: 60% for prevention measures, 19% for rehabilitation, 9% for reintegration into society, and 12% for harm reduction.

Italian Law No. 162 of 1990 set aside funds from the national budget for the prevention and treatment of drug abuse. The three main provisions set by this law are:

a) Establishment of the National Fund for the Fight Against Drugs to be run by the Prime Minister's Office. An annual budget of 178 billion lire was allocated (approximately US$140 million) between the Health, Interior, Education, Defense and Justice Ministries;
b) Provision of 50 billion lire (US$40 million) to the Interior Ministry each year for projects proposed by municipal administrations, local health bodies, and by cooperatives or private institutions; and
c) Provision of 100 billion lire (US$80 million) to the Ministry of Public Works for the years 1990 – 1992 to finance the construction or enlargement of treatment centres.

With regard to the Fund, it is worth noting that:

i) The percentage of the Fund's financial allocation reflected the relative importance of municipal actions (49%) in comparison to initiatives at the national (44%) or regional level (7%).
ii) The greatest amount of money has been invested in the Northern regions, followed by the Southern regions, the Centre and the Islands; and

iii) Primary prevention measures tend to be implemented at a local level (60% of the budget), whereas programmes for rehabilitation and reintegration into society and the workplace have generally been conducted by voluntary associations.

In 1993 the National Fund for the Fight Against Drugs was relocated to the Department of Social Affairs, a division of the Prime Minister's Office. The new Fund contains the original resources (178 billion lire) which were combined with the 50 billion lire of the Interior Ministry.

SOURCES AND/OR BASIS OF CALCULATION FOR THE SUMMARY STATISTICS

1. – 3., 5., 6.	UN 1996
4., 7. – 10., 12., 14.	UNDP 1995, 1996
11.	Eurostat 1995
16., 28., 29., 31., 35., 44.	UNDCP Annual Report Questionnaires Database
17., 19.	various, see text.
18.	Presidenza del Consigio dei Ministri, Dipartimento per Gli Affari Sociali, 1995
20., 21.	Ministry of Health 1995
22., 23.	European Centre for the Epidemiological Monitoring of AIDS 1996
24., 26., 27., 34., 38.	Ministry of Interior 1996
25.	WHO 1995
32., 33.	G. M. Rey 1993, UNDCP Annual Report Questionnaires Database
36., 37.	Kangaspunta 1995
39., 41., 42.	Ministry of Justice 1996

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Pakistan • Summary Statistics

BACKGROUND

1.	Population (1995)	128,010,000
2.	Population growth rate, (%) (1990 – 1994)	3.1
3.	12 – 24 year-old population (1981)	9,900,000
4.	Share of urban population, (%) (1994)	31.5
5.	Deaths/1,000 (1995)	10.1
6.	Births/1,000 (1995)	39.5
7.	Real GDP per cap, US$ (PPP$ 1993)	2,160
8.	HDI rate (1993)	0.442
9.	HDI rank (1993)	134
10.	Real GDP per capita (PPP$) rank minus HDI rank (1993)	–15
11.	Unemployment rate, (%) (1994/95)	4.7
12.	Social security benefits as % of GDP	n.a.
13.	Share of education of total public expenditure, (%) (1994/95)	11.9
14.	Share of health of total public expenditure, (%) (1994/95)	3.5

EXTENT AND PATTERNS OF DRUG USE

15.	Life time prevalence of drug use among 12 – 24 year-olds, (%)	n.a.
16.	One-year prevalence of drug use among 12 – 24 year-olds, (%)	n.a.
17.	Number of dependent users (1993)	3,000,000
18.	Share of males among dependent users, (%) (1993)	97
19.	Estimated number of dependent heroin users (1993)	1,530,000
20.	Share of persons under 21 years among dependent users, (%) (1993)	9.5

CONSEQUENCES OF DRUG USE

21.	Percentage of injectors of dependent users (1993)	2
22.	Cumulative AIDS cases per 100,000 people (1995)	0.04
23.	Share of IDU-related AIDS cases in 1995, (%)	n.a.
24.	Drug-related deaths per 100,000 people	n.a.
25.	Share of under 25 year-olds of all deaths, (%)	n.a.
26.	Share of under 25 year-olds of drug-related deaths, (%)	n.a.
27.	Annual trend in the number of drug-related deaths, (%) (1990 – 1992)	n.a.

ILLICIT DRUGS MARKET

28.	Price of heroin at retail level, US$/g (1994, not pure)	4
29.	Price of cocaine at retail level, US$/g	n.a.
30.	Price of amphetamine at retail level, US$/g	n.a.
31.	Price of cannabis at retail level, US$/g (1994, not pure)	0.1
32.	Consumption expenditure on illicit drugs, US$ million (1993)	1,500
33.	Consumption expenditure on heroin, US$ million (1993)	1,200

CRIME, LAW ENFORCEMENT AND DRUG POLICY

34.	Annual trend in the number of seizures, (%) (1991 – 1994)	+7.9
35.	Retail market value of seized drugs, US$ million (1994)	23
36.	Offences of acquisitive crime per 100,000 people (robbery, burglary, theft, 1993)	41.0
37.	Offences of violence per 100,000 people (murder, att. murder, hurt, assault on Police, 1993)	31.5
38.	Persons arrested for drug offences per 100,000 people (1993)	49.2
39.	Annual trend in the number of persons found guilty for drug offences, (%) (defendants, 1991 – 1994)	+4.9
40.	Share of use and possession offences of all drug law offences, (%) (Rawalpindi city, 1995)	16.1
41.	Share of incarcerations of all drug law offenders found guilty, (%)	n.a.
42.	Average length of prison sentences for drug-related offences, months	n.a.
43.	Share of prevention and treatment of the public drug control budget, (%) (1995)	30

For sources and/or basis of calculation please see the end of this country profile

1. BACKGROUND

The population of Pakistan was estimated to have reached 128 million by January 1995. The current population growth rate is 3%, which is higher than the South Asian average of 2.4%. The territory of Pakistan comprises four provinces: Punjab, Sindh, North West Frontier Province (NWFP), Baluchistan, together with the Federally Administered Tribal Areas and the Federal Capital Area of Islamabad. The majority of the population lives in the fertile Indus river plain in the Punjab and Sindh.

Pakistan's main ethnic groups are the Punjabis, Sindhis, Baluchis and Pathans, plus a number of small tribal groups in the more remote northern areas. The Mohajirs, or refugees from India at the time of independence, are sometimes considered as an ethnic group. A recent element in the population is the Afghan refugees, who have been mainly concentrated along the tribal areas near the border. Notwithstanding the historic links between Afghan and Pakistani frontier regions, the sheer numbers – and suspicions concerning the role of some refugees in illicit activities including drug trafficking – fuelled local hostility. Early in 1997 the government estimated the number of refugees remaining at 1.75 million, down from a peak of over three million in the late 1980s.

Ninety-seven percent of the population is Muslim. Pakistan is still predominantly a rural society – the share of the urban population was officially estimated at 31.5% in early 1994. Health indicators show that Pakistan compares fairly well with other low-income developing countries regarding access to health services, life expectancy and infant mortality rate. In fact, the health component of the Pakistani Human Development Index is comparatively strong. Pakistan's low ranking on the Human Development Index is mainly due to very modest advances in education, especially for women.

Low government spending on education has resulted in a low literacy rate compared with most other Asian countries. The rate was estimated at 36% by UNDP by 1992, but the rate for women is considerably lower, only 22%. In 1994/95 only 71% of the eligible population was thought to have been enrolled in primary schools and 30% in secondary schools. The position for girls is much worse than the general figures suggest.

In 1994/95 the total size of the labour force was estimated at 35.7 million, of which 71% was rural. Only 2.9% of those included in the calculation of labour force in the 1981 census were women. Agriculture accounted for around 47.5% of the labour force in 1994/95. During the last three decades, increases in the labour force have come in trade, construction and transport. Unemployment was officially said to be at 4.7% in 1994/95, but underemployment is widespread. Only around 25% of the employed work force were wage earners in 1990/91.

2. EXTENT AND PATTERNS OF DRUG USE

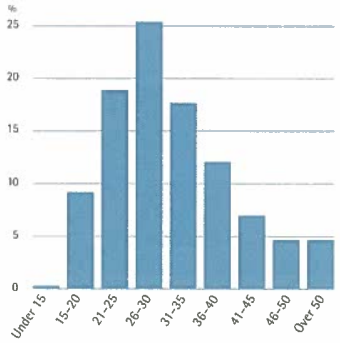
In 1993 the Pakistan government conducted the most recent national survey on drug abuse. On the basis of interviews with drug consumers and community leaders it was estimated that there were over three million drug abusers in Pakistan, of whom 51% were taking heroin. Consumers were identified by using a non-random method called 'snowballing'. Owing to the nature of the sample and some parts of the methodology, the validity of the survey is sometimes questioned.

The second most preferred drug was cannabis in its different forms. Other drugs used were opium and other opiates, and depressants. The study estimated that 2.5% of urban and 2.3% of rural population were abusing drugs. In 1988, rural prevalence had been higher than that of urban prevalence. In the 1993 survey, the rural prevalence estimate stayed unchanged but had been surpassed by urban prevalence. However, in absolute numbers the rural drug-user population still seems to be larger than the number of urban users.

It should be noted that of the 1,000 persons interviewed and identified as drug abusers, almost 70% were taking drugs twice or more per day. This suggests that the sample was largely composed of people with serious drug problems (Maqsood, et. al, 1994). Therefore, occasional users' habits may differ from those found in the survey.

About 54% of the surveyed drug abusers were less than 30 years old. The largest group was those aged 26 – 30 (see Fig. 1). According to the findings of the study, the highest percentage of urban abusers had 6 – 10 years of schooling, and among rural abusers five years or less. These shares probably reflect the education patterns among the general population of Pakistan.

Fig. 1: Age distribution of drug addicts in Pakistan.



Source: Pakistan National Survey on Drug Abuse 1993.

Labourers, skilled or unskilled, accounted for more than half of all the surveyed abusers. The share of agricultural workers surveyed was very small, given their large share of the work force. Male respondents accounted for 97.2% of the sample, which probably does not reflect the actual share of female abusers. The field workers were exclusively male, which will certainly have influenced the low share of women surveyed. Furthermore, explicit efforts to include women in the sample were conducted only in two of the survey's 26 geographical areas. In 1993 the age of initiation of heroin use seemed to have fallen since the 1988 study, though this trend now appears to be reversing.

Of the surveyed users 62% had a full-time job, while the unemployed represented 14% of the sample; others fell into categories such as part-time or casual workers and beggars. Although the share of unemployed drug abusers is not high, it is significantly higher than the share of unemployed in the general population.

The most common route of heroin administration in Pakistan is inhaling, derived from the form of use known in South-East Asia as 'chasing the dragon'. Injection was not common among users – only 1.8% reported having injected the drug. It is, however, significant that injection was reported for the first time in 1993.

For 97% of drug-dependent prisoners in Rawalpindi, (a city located very close to the capital, Islamabad) heroin was the primary drug of abuse, other drugs being opium, buprenorphine (an opiate), and cannabis. Of the prisoners, 62.5% were 20 – 34 year-olds, the second largest group being 35 – 44 year-olds (14.4%). Only 0.6% of the prisoners injected drugs, whereas 81% 'chased the dragon' (UNDCP, 1996b).

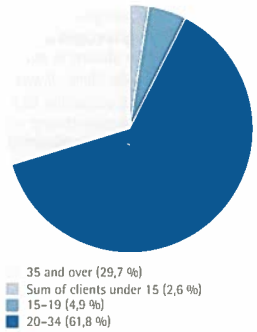
3. CONSEQUENCES OF DRUG USE

The age distribution of clients at five treatment centres during April – September 1995 coincides fairly well with that of drug users surveyed in the National Survey 1993: the majority are in the 20 – 34 year category. (see Fig. 2).

Among treatment clients in Rawalpindi, drug injection was reported among 8.9% of 1,150 persons treated. Different treatment records confirm that heroin, opium and other opiates account for more than 90% of treatment clients. Other drugs mentioned are cannabis, depressants, inhalants, and amphetamine-type stimulants (ATS).

Fifty-two AIDS cases had been reported in Pakistan by the end of 1995. The adult HIV infection rate was estimated at 0.063 per 100,000 persons aged 15 – 49. These figures fit well with the low reported prevalence of injection of drugs. The data on drug-related mortality are very scarce and almost certainly do not reflect the true situation. Twelve drug-related deaths were reported to Interpol in

Fig. 2: Age distribution of treatment clients in Pakistan.



Source: Centre for Drug Research, Malaysia, 1995.

1991. On the other hand, the widespread pattern of 'chasing the dragon', whereby only around 60% of the active ingredients can be utilized, may explain the relatively low reported number of opiate-related overdose deaths.

DAI and DATI

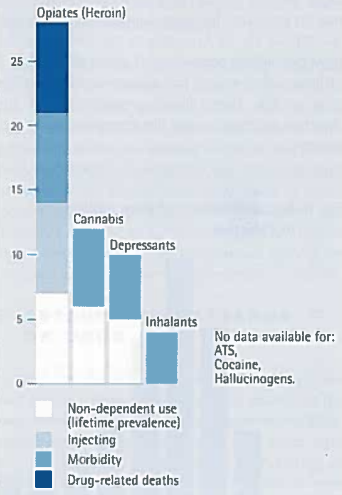
The Drug Abuse Index (DAI) shows that opiates are clearly the most problematic drugs. Although the data are not complete and therefore no definite conclusions can be made, it is worth mentioning that cannabis, depressants and inhalants also get rankings among treatment clients (see Fig. 3).

The Drug Abuse Trend Index (DATI) suffers from missing data. The only drugs that can be ranked are the opiates and cannabis. Within the opiate group, use moves away from opium towards increased use of heroin. Cannabis use is decreasing while the number of treatment clients is growing (see Fig. 4).

4. ILLICIT DRUGS MARKET

Pakistan is a significant producer and transit country for opiates and cannabis products. There is evidence that considerable amounts of Afghan opiates and cannabis are either consumed in

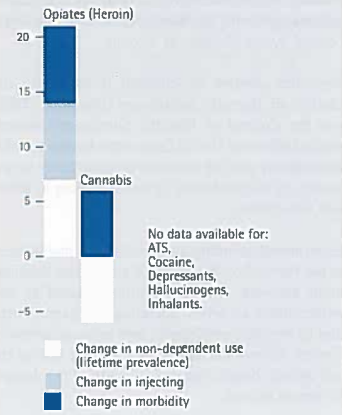
Fig. 3: Drug Abuse Trend Index (DAI) – Pakistan.



Pakistan by a significant drug-user population, or transit the country on their way to world markets (U. S. Department of State, 1996). Opium poppy cultivation estimates vary by source, but in recent years they have hovered around 6,000 – 7,000 hectares. Eradication has accounted for 2 – 14% of the estimated cultivation during the 1990s. Data from 1996 suggest that cultivation is now down to little more than 1,000 hectares. Unofficial sources suggest that cannabis cultivation is extensive, perhaps more than 100,000 hectares.

The precursor chemicals seized have been those used in heroin production. The amounts were rapidly increasing in 1991 – 93. However, neither 1994 nor 1995 figures had been reported to INCB. Assuming that other inputs were available, the amount of acetic anhydride seized in 1993 would have been enough to produce around nine million

Fig. 4: Drug Abuse Trend Index (DATI) – Pakistan.

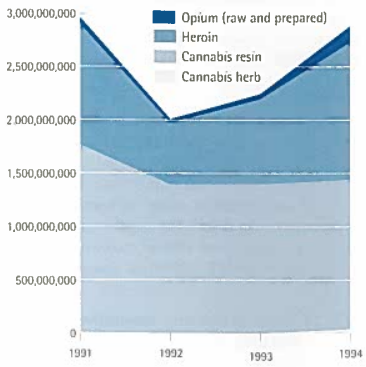


dosage units of heroin. The destruction of laboratories occurs haphazardly in the tribal areas, essentially the Khyber Agency. In 1997, the Government of Pakistan reported that all heroin labs had been destroyed. Morphine base is produced in the tribal areas of NWFP for refining abroad, and heroin of varying levels of purity is produced for both domestic use and export. Political instability in the NWFP limits the government's ability to take action against producers and refiners of narcotics (U.S. Department of State, 1996).

Of drug seizures converted into dosage units, 59% were of cannabis in 1991 – 1994. The rest were of opium and heroin. The total quantity in dosage units was highest in 1994, when 2.9 billion dosage units were seized (see Fig. 5). The street value of 1994 seizures was about US$23 million.

In 1992, illicit drug export revenues were estimated to be US$1.5 billion, of which heroin is considered to account for US$1.3 billion (UNDCP, 1994).

Fig. 5: Seizures in Pakistan in dosage units.



UNDCP has estimated that domestic opiate consumption is significantly higher than domestic cultivation and production. The domestic consumer market needs at least 500 tonnes of opium equivalent (in its different forms) to satisfy the demand. In 1993, annual consumer expenditure on drugs was estimated at US$1.5 billion of which US$1.2 billion was spent on heroin. The sum is comparable to the illicit export revenues of opiates (UNDCP, 1994). The street value of seizures was less than 1% of the total local expenditure and export earnings in 1994, and the replacement cost for drug traffickers is even lower.

5. CRIME AND LAW ENFORCEMENT

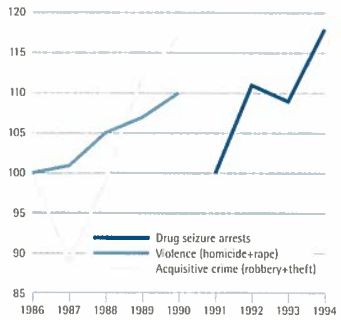
Pakistan reported the numbers of murders, robbery, rape and theft to the fourth United Nations Survey on Crime Trends. These data can be listed under the headings 'violence' including homicide and rape, and 'acquisitive crime' for the other two, although a large part of data belonging to these categories is missing. Compared to other countries in Asia and the Pacific, only the rate for murder is higher than average. Otherwise, Pakistani crime rates are well below regional averages. The growth rate of reported crimes has been moderate – 'violence'

grew by 10% and 'acquisitive crime' by 17% during 1986 – 1990. There is, however, no indication how well these data depict the real situation. Arrests for drug seizures grew at more or less the same pace in 1991 – 1994 as did 'acquisitive crime' offences five years earlier (see Fig. 6).

In 1994 there were over 59,000 drug seizures, 33,576 persons were convicted and 12,540 were acquitted (INCB, 1995; UNDCP, 1996a). The number of drug law offences was higher than the total of violence or 'acquisitive crime' offences recorded by the police in 1993.[1] The number of offences involving possession of a minor quantity of a drug is not known (UNDCP, 1996a). In Rawalpindi city,

Fig. 6: Trends in violence, 'acquisitive crime', and drug seizure arrests.

Indexed rates 1986 = 100 for violence and acquisitive crime, 1991 = 100 for seizures per capita



Source: UNAFEI – AIC, 1994; Government of Pakistan, 1995.

drug-related statistics were gathered during March – December 1995. Possession and use arrests accounted for 16.1% of all arrests (UNDCP, 1996b). Pakistan acknowledges that corruption in public administration is a serious problem and has taken steps to eliminate this, but the traditional patronage and 'spoils system' are slow to disappear.

6. DRUG POLICY

The Federal Government is charged with policy making for narcotics control. Under current political arrangements, the Narcotics Control Division is headed by the Minister of Interior.

Narcotics control in Pakistan is based on the Control of Narcotic Substances Ordinance (1995) and the Control of Narcotic Substances Amendments Ordinance (1996) Laws often have a variable applicability and the situation is complicated by the variety of administrative systems existing in NWFP and Baluchistan.

Government spending on narcotics has mainly been in the form of co-financing of alternative development projects, and expenditures related to law enforcement activities. Spending has been limited due to resource constraints, and because narcotics control was not deemed a priority issue during the last decade, despite the rapid growth of the domestic heroin market.

Detoxification, treatment and rehabilitation are currently supported by several international, bilateral, and non-governmental organizations in Pakistan. The activities are normally administered at provincial level. In 1995, there were about 200 treatment centres in Pakistan, although these were felt to be insufficient to deal with the extent of drug abuse (INCB, 1995).

Demand reduction activities have gained more importance since the 1993 national survey revealed the extent of drug abuse. The Pakistan government's Eighth Five-Year-Plan (1993 – 1998) makes an indicative allocation of the equivalent of US$1.1 million for drug control, including US$330,000 for demand reduction, i.e., around 30% of the total. (UNDCP, 1996a).

UNDCP's project expenditure in Pakistan has been dominated by supply reduction activities, but their share decreased slightly in 1995 and projects are being reoriented towards demand reduction. A part of the Asia regional project expenditure

1) In 1993, the available data included the following offences, grouped under violence: murder, attempted murder, injury, assault on police, rape, kidnapping, and kidnapping of a child. 'Acquisitive crime' offences included robbery, burglary and theft.

is spent on activities in Pakistan (UNDCP Finance Section data).

Punishment for drug law offences is based on quantities seized at arrest. Death or life imprisonment may be applied to offenders caught possessing more than a specified quantity of a narcotic drug, psychotropic substance or controlled substance.

SOURCES AND/OR BASIS OF CALCULATION

1., 3. – 6., 11., 13., 14.	Economist Intelligence Unit 1996
2.	UN 1996
7. – 10.	UNDP 1996
17. – 21.	Ather, Syed, Sikander 1994
22.	UNAIDS 1996
28., 31., 35., 44.	UNDCP Annual Report Questionnaires database
32., 33.	UNDCP 1994
34., 38., 39.	Government of Pakistan 1995
36., 37.	UNAFEI, AIC 1990
40.	UNDCP 1996b
43.	UNDCP 1996a

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Sweden • Summary Statistics

BACKGROUND

1.	Population (1994)	8,780,000
2.	Population growth rate, (%) (1990 – 1994)	0.6
3.	15 – 24 year-old population (1993)	1,102,000
4.	Share of urban population, (%) (1993)	83
5.	Deaths/1,000 (1994)	10.3
6.	Births/1,000 (1994)	12.6
7.	Real GDP, US$ per capita (PPP$ 1993)	17,900
8.	HDI rate (1993)	0.933
9.	HDI rank (1993)	9
10.	Real GDP per capita (PPP$) rank minus HDI rank (1993)	12
11.	Unemployment rate, (%) (1993)	7.7
12.	Social security benefits as (%) of GDP (1992)	38.3
13.	Share of education of total public expenditure, (%) (1993)	9.3
14.	Share of health of total public expenditure, (%) (1989 – 91)	11.1

EXTENT AND PATTERNS OF DRUG USE

15.	Lifetime prevalence of drug use among 16 – 29 year-olds, (%) (1996)	9
16.	One-year prevalence of drug use among 16 – 29 year-olds, (%) (1996)	2
17.	Number of dependent users (heavy users, 1992)	17,000
18.	Share of males among dependent users, (%) (heavy users, 1992)	75
19.	Estimated number of dependent heroin users (heavy users, 1992)	4,800
20.	Share of persons under 20 years among dependent users, (%) (heavy users, 1992)	1.5

CONSEQUENCES OF DRUG USE

21.	Percentage of injectors of dependent users (heavy users, 1992)	93
22.	Cumulative AIDS cases per 100,000 people (1995)	15.0
23.	Share of IDU-related AIDS cases in 1995, (%)	14.3
24.	Drug-related deaths per 100,000 people (1994)	2.3
25.	Share of under 25 year-olds of all deaths, (%)] (1992)	1.5
26.	Share of under 25 year-olds of drug-related deaths, (%) (1993)	3.6
27.	Annual trend in the number of drug-related deaths, (%) (1990 – 1994)	+9.8

ILLICIT DRUGS MARKET

28.	Price of heroin at retail level, US$/g (1994, not pure)	305
29.	Price of cocaine at retail level, US$/g (1994, not pure)	149
30.	Price of amphetamine at retail level, US$/g (1994, not pure)	53
31.	Price of cannabis at retail level, US$/g (1994, not pure)	14
32.	Consumption expenditure on illicit drugs, (amph., coc., her., cann., 1994), US$ million	400
33.	Consumption expenditure on heroin, US$ million (1994)	100

CRIME, LAW ENFORCEMENT AND DRUG POLICY

34.	Annual trend in the number of seizures, (%) (1990 – 1994)	+2.6
35.	Retail market value of seized drugs, US$ million (amph., coc., her., cann., 1994)	40
36.	Offences of acquisitive crime per 100,000 people (1993)	5,100
37.	Offences of violence per 100,000 people (1993)	660
38.	Persons found guilty for drug offences per 100,000 people (1994)	103
39.	Annual trend in the number of persons found guilty for drug offences, (%) (1990 – 1994)	+3.9
40.	Share of possession offences out of all drug law offences, (%) (arrested, 1995)	78
41.	Share of incarcerations of all drug law offenders found guilty, (%) (1994)	25
42.	Average length of prison sentences for drug-related offences, months (estimate, 1994)	20
43.	Share of prevention and treatment of the public drug control budget, (%)	n.a.

For sources and/or basis of calculation please see the end of this country profile

1. BACKGROUND

Sweden is the third largest country in western Europe, after France and Spain, yet its population of 8.8 million (1994) is equivalent to that of Greater Paris and little more than that of Greater London. A third of Sweden's population lives in three major cities – Stockholm, Göteburg, and Malmö – and some 86% in southern and central Sweden (Economist Intelligence Unit, 1995).

In the late 1980s the country's population growth accelerated from the low levels which had been sustained since the 1970s, mainly as a result of immigration. At the end of 1993, a total of 960,000 persons, or 11% of the population, were foreign-born. The main inflow has consisted of other Nordic nationals, particularly Finns. Other significant national groups include Iranians, Turks, Poles, Chileans and Lebanese, and immigrants from the former Yugoslav republics (Economist Intelligence Unit, 1995).

Sweden's advanced social welfare system is internationally famous. It is based on the concept of social development in a mixed economy, while reflecting some deeply rooted principles of the country's predominant religion, Evangelical Lutheranism (Economist Intelligence Unit, 1995). The cost of social welfare is financed by the central government, county councils and municipalities, as well as employers. Health and social affairs represent the largest share of central government expenditure (23.5% in the fiscal year 1992/1993, Economist Intelligence Unit, 1995). However, local government bodies finance most of the health expenditure, hence central government spending specifically on health is low.

Schooling is mandatory for all children between the ages of seven and 16 and most pupils continue for another two to three years of vocational or pre-university training. Public schools are free of charge. Education and culture represented 9.4% of central government expenditure in 1993 (Economist Intelligence Unit, 1995). The extensive welfare system has led to a large public sector share in the labour market and in the economy – 40.4% of all those employed worked for the public sector, and the public expenditure (central and local government) was equivalent to 70% of the GDP in 1993 (Economist Intelligence Unit, 1995).

Sweden has traditionally been a country of low unemployment. During 1990 – 1994, the unemployment rate rose from 1.6% to 8% as a result of the most severe recession since the Second World War, with a total fall in real GDP of 5% from 1990 to 1993. This development has caused great imbalance in the public finances, leading to massive public sector borrowing. The general government debt rose from 46% in 1991 to an estimated 81% in 1994 as a share of GDP (Economist Intelligence Unit, 1995).

2. EXTENT AND PATTERNS OF DRUG USE

The Swedish data reflect mainly occasional and heavy drug use, but there is almost no data on regular, yet less than daily drug use. Statistics on occasional experimentation with drugs are obtained primarily through surveys of school children and of 18 year-old military conscripts, and through surveys among the general population. Drug-use patterns among 15 year-old school children, stayed fairly stable until the early 1990s, when drug use increased across the board – 5% of girls and 6% of boys had used drugs at least once in 1995, while 1% of both sexes were using them at the time of the survey in 1994. Boys try volatile substances more often than girls, and volatile substances are tried by more children than other drugs (see Table 1). However, the rates of experimentation are far lower than in the beginning of the 1970s when 12 – 15% of the questioned admitted having used drugs, and up to 27% of boys and 17% of girls had tried volatile substances.

For the last few years, the reporting system of the Swedish Council for Information on Alcohol and other Drugs (CAN), has received increasing numbers of reports on the use of brown smokeable heroin. The use of brown heroin has mainly involved immigrants, but also marginalized Swedish youth has started using this drug. Small amounts of *khat* have also been seized during recent years.

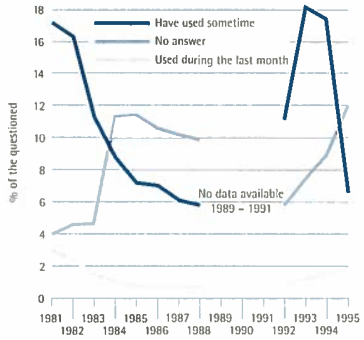
Table 1. Proportion of boys and girls in Grade nine who use or have used drugs.

	Have used narcotics %		Still using narcotics %		Have used volatile solvents %	
Year	Girls	Boys	Girls	Boys	Girls	Boys
1985	4	4	–	–	6	9
1986	3	5	–	–	4	7
1987	3	3	–	1	5	7
1988	3	4	–	1	5	7
1989	3	3	–	–	6	6
1990	3	4	1	1	4	6
1991	4	4	–	–	3	6
1992	4	5	–	1	5	6
1993	5	5	1	1	4	9
1994	4	5	1	1	6	8
1995	5	6	–	–	7	12

Source: Folkhälsoinstitutet/CAN, 1996.

The surveys concerning military conscripts[1] reflect the same pattern of decreasing drug use in the 1980s, while a significant increase was noted during the 1990s. About 9% admitted having used drugs some time and 1.5% during the last month (see Fig. 1).

Fig. 1: Self-reported drug use among military conscripts in Sweden.



Source: Folkhälsoinstitutet – CAN, 1996.

The share of persons giving no answer to questions on drug use increased from 4% in 1980 to 17% in 1994 and declined to 7% in 1995. This may partly reflect an increasing severity in drug legislation – a new law on coercive care of adult drug abusers in 1982, the criminalization of drug use in 1988 and the introduction of a maximum sentence of six months' imprisonment for illicit drug use in 1993. However, according to the survey report, anonymity is secured through sealing the answers in unmarked envelopes by respondents themselves (Guttormsson, 1994).[2]

Cannabis had been accessible to more than every fourth military conscript, and 7.5% had also used it. Other relatively available drugs (offered to 5 – 7% of those questioned), which had also been used by roughly 1% or more of respondents, were central nervous system stimulants (CNS) tranquillizers, ecstasy and hallucinogens (see Fig. 2).

According to surveys, 7.9% of the population aged 16 – 74 years have used drugs illicitly at least once (excluding inhalants). The group with the highest prevalence figures were aged 30 – 49 years, 12 – 15% having used drugs. Only 7 – 12% of those aged 16 – 29 had tried drugs, which reinforces the conclusion that recreational use

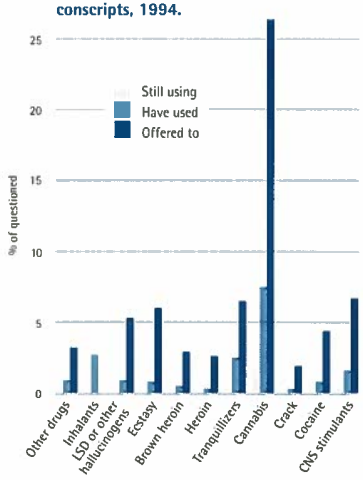
1) In Sweden, both sexes are allowed to participate in military training. In 1994, of 48,000 military conscripts, around 200 were women.
2) During 1981 – 1995, the non-response rate and the percentage admitting drug use had a fairly strong negative correlation: –0.55.

Table 2. Percentage of persons that have tried narcotic drugs in Sweden, by gender and age.

Year	Men	Women	16 – 29	39 – 49	50 – 74	All
1988	11	5	12	12	2	8
1989	11	5	12	12	1	8
1990	11	5	10	12	2	8
1991	10	5	9	12	1	7
1992	10	5	7	13	1	8
1993	11	6	9	15	2	9
1994	10	7	9	14	2	9
1995	10	6	9	14	2	9

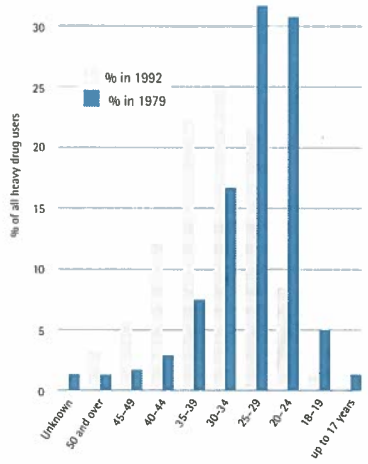
Note: Values are sliding three-year averages from 1990 onwards. Interviews in 1988 – 1991 were made by Sifo, and in 1992 – 1994, 1996 by Temo. Source: Folkhälsoinstitutet/CAN 1995.

Fig. 2: Drugs offered to and taken by military conscripts, 1994.



Source: Folhälsoinstitutet – CAN, 1995.

Fig. 3: Estimated age distribution of heavy drugs users in 1979 and 1992.



has decreased among the general population since the 1970s (see Table 2).

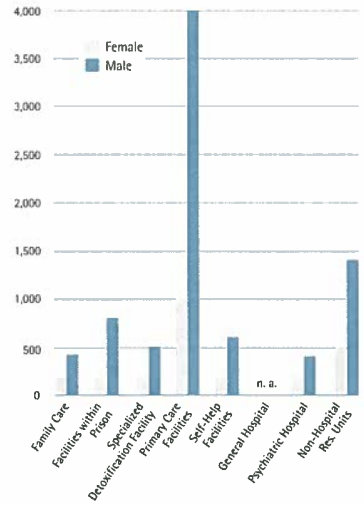
Hard-core drug abuse was studied extensively in 1979 and 1992. The central estimate for the total number of addicts (persons injecting drugs, or taking other drugs daily or almost daily) rose from 12,000 to 17,000 in 1992. Comparison of the estimated age distribution of addicts in 1979 and 1992 shows an aging of the addict population. In 1992, almost half the addicts were 30 – 39 years old, while only around 10% were under 25 years (see Fig. 3).

Over 90% of addicts had injected one or more drugs and polydrug use was the most common type of abuse. The most common drugs were CNS stimulants (82%), cannabis (66%), opiates (35%)[3], and benzodiazepines (35%). Amphetamine ('speed') and heroin were the most commonly injected drugs. Around half the addicts had used drugs for 10 years or more.

3) 28% of all the users were injecting heroin.

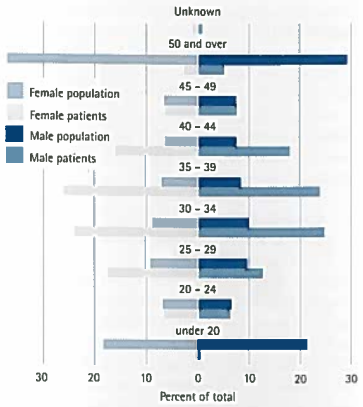
In addition to the main results, the hard-core drug abuse study of 1992 included a table of the number of drug users classified by the number of authorities that had registered them. Drug users were further classified as heavy users and occasional users. Occasional users are understood here as those who use drugs less often than daily and do not inject them. By applying a statistical method known as a truncated Poisson process, the following population estimates were reached:

Fig. 4: Number of persons in residential treatment in 1993.



Source: Council of Europe, 1995.

Fig. 5: Age structures of general population and drug abuse patients in Stockholm, 1994.



Source: Council of Europe, 1995.

Heavy users	16,000
Occasional users	22,000.[4]

Both occasional and hard-core drug use are more pronounced in the cities of Stockholm, Göteborg and Malmö than elsewhere in the country. According to a survey carried out among 16 – 25 year-olds in 1993, youth living in city areas have tried drugs five times more often (10%) than those living in places with less than 20,000 inhabitants (2%) (Folkhälsoinstitutet/CAN, 1995). Residential treatment statistics show that in Sweden, three out of four addicts are male. However, in Stockholm, 41% of treatment demands correspond to female addicts. In Stockholm, female addicts are also slightly older than male, the largest age group for women being 35 – 39 years and for men 30 – 34 (Council of Europe, 1995, see Figs. 4 and 5).

4) The following equation for the expected number of notifications of users (the equation can be applied to both heavy and occasional users, but separately) is assumed to apply: $E(k=k_i)=N(\lambda_i^{k_i} * e^{-\lambda_i})/ k_i!$, $k_i \in \{1,2,...,6\}$, where k is number of authorities having registered the user, $E(k_i)$ is the expected (observed) number of users that have been registered k_i times, N is the size of the user population, and λ is the intensity parameter of the truncated Poisson probability function. From pairs of equations with adjacent k_i values, an average value for different λ_i can be calculated, resulting $\lambda = 2.3$. for heavy users and $\lambda = 1.0$ for occasional users ($k_i = 6$ is excluded from the analysis), which can be placed in the equations to solve N.

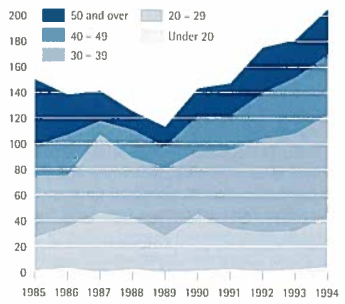
Swedish literature mentions 'subcultural' misuse of drugs as the most dominant form of drug use in Sweden (see e.g., Olsson, 1994). An example of subcultural drug use is that of the prison population. More than 40% of prison inmates and 30% of those in non-institutional care within the penal system are reported illicit drug users. During the 1990s about 30% of all new prisoners serving sentences of two months or longer were classified as heavy drug users, and 12 - 14% as users of illicit drugs (Folkhälsoinstitutet/CAN 1995).

3. CONSEQUENCES OF DRUG USE

Hepatitis has been increasingly detected among drug injectors in Sweden, but this growth in diagnosis can be at least partly attributed to increased facilities to detect the hepatitis C virus. More than 90% of the cases were not acute infections, but the persons had carried the virus undetected for several years. More than half of all the hepatitis B and C cases relate to injecting drug users. In 1994 2,678 hepatitis cases were registered.

During the 1990s, 250 - 380 new seropositive persons have been detected annually, 10% of whom are injecting drug users (IDUs). In the 1980s IDUs represented 23% of all seropositive cases.

Fig. 6: Drug-related mortality in 1985 - 1994.



Source: Swedish Government's communication to UNDCP, 1996.

Injecting drug use has gradually become a relatively less important direct risk factor in Sweden. By the end of 1995, 4,207 cumulative HIV cases and 1,324 AIDS cases had been recorded. More than half of the seropositive IDUs were recorded in Stockholm county.

Hospital admission data from Stockholm county show that heroin and amphetamine are the most frequently detected drugs. The statistics are coded by admissions and by persons, so that it is possible to calculate the number of admissions per person per year. Heroin users were taken care of more than twice a year on average. Other drug users had a frequency of admission varying between 1.5 and 1.9 times per person per year. Among them ATS users were closest to the admission frequency for heroin, 1.9 times per person in 1993. The admission frequencies per person have been relatively stable during the 1990s, the greatest fluctuation being among cocaine users, which is due to the low number of users treated. The rate of drug-related deaths per 100,000 inhabitants was 2.3 in 1994, whereas the same rate for alcohol-related deaths was 11.6. This means that for every person who died because of drug abuse, there were five alcohol-abuse related deaths.

Drug-related deaths are concentrated among older abusers - 40% of the deaths were of persons 40 years and over in 1994. Only 4% of the deaths were of persons aged 20 - 24. However these data do not include volatile substances, which might bring those under 20 years into the statistics. Increasing mortality among older age groups can clearly be seen in Fig. 6. These mortality figures also include suicides, violent deaths, and accidents, where drug misuse has been an underlying or contributing factor.

In 1993, 48% of the deaths were attributed to heroin use, and one fifth to ATS use. Taking into consideration the relatively low levels of reported heroin use, ATS stands out as the drug most linked to mortality. Hallucinogens and cocaine have caused most deaths only in age groups under 30, and cannabis was mentioned exclusively with deaths of persons aged 30 and over (see Fig. 7).

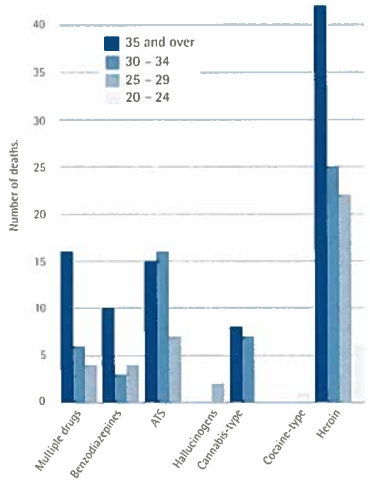
DAI and DATI

It can be seen that ATS rank as the most problematic drug type in Sweden, and the trend is worsening. Cannabis is widely used, but cannabis-related problems seem to be stable or decreasing, although new user generations could increase the user population. And these problems seem to be growing fast. Heroin is not widely used, but it causes the highest social costs compared to its prevalence, and these costs are increasing. Hallucinogens and cocaine use, and problems related to them, seem to be marginal and decreasing in Sweden. Inhalants are widely used, but no information was found on the consequences of inhalant use (see Figs. 8 and 9).

4. ILLICIT DRUGS MARKET

Sweden is primarily a destination country for illicit drugs although some may be in transit to other

Fig. 7: Drug-related deaths by age and drug in 1993.



Source: 1993 ARQ.

Fig. 8: Drug Abuse Index (DAI) - Sweden.

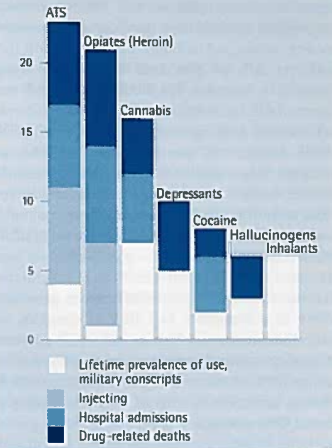
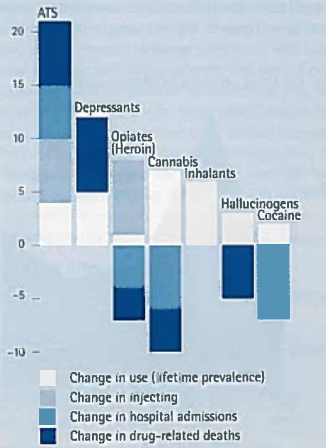


Fig. 9: Drug Abuse Trend Index (DATI) - Sweden.

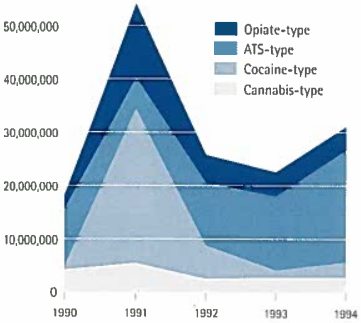


countries. No manufacture of narcotic drugs or psychotropic substances has been reported by the Swedish authorities. The total number of seizures almost doubled in 1985 – 1995. The overwhelming majority of seizures are those of ATS, cannabis, cocaine, heroin and barbiturates together with tranquillizers. ATS are the most often seized drugs, followed by cannabis. The Netherlands is the main source of ATS for Swedish trafficking, but an increasing amount is being supplied by Poland (UNDCP 1995). Around half the ATS seized in 1994 was of Polish origin (HONLEA 1995). Since 1993, ATS seizures have outnumbered those of cannabis. In 1993 and 1994, Sweden ranked second out of all European countries in terms of total quantity of ATS seized (UNDCP 1995).

Barbiturates and tranquillizers have also been seized at a frequency half that of cannabis and more than twice as often as heroin. The number of seizures concerning these substances doubled during 1990 – 1995, which is the fastest growth for all drug types. The number of heroin seizures grew almost 80% during the same time period.

Most of the cannabis trafficked to Sweden is in the form of resin (hashish) and originates in Morocco. The drug is most frequently smuggled into Sweden in small quantities, often by private vehicles for personal use. Transport of the drug in trucks coming from the Netherlands has also been noted. Swedish authorities have expressed their concern at the increased use of small vessels to smuggle cannabis into Sweden (ARQ, 1994; HONLEA 1995). The weight of cannabis seizures decreased by 12% between 1990 and 1995, whereas the regional reporting system of the Swedish Council for Information on Alcohol and other Drugs (CAN) has noted increased curiosity towards cannabis among youth. Therefore, the statistics do not convey a clear message on the development of cannabis use.

Fig. 10: Drug seizures in dosage units.



Source: UNDCP SRS database.

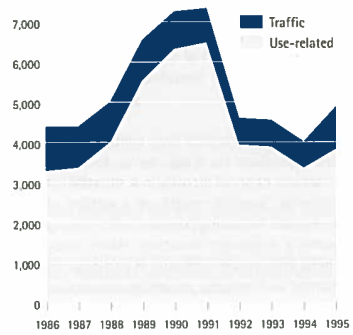
The number of ATS and heroin seizures grew 49% from 1990 to 1995, and that of cocaine decreased by 20% during the same period. The weight data roughly repeat the same pattern, with the exception of considerable variations in the quantities of cocaine seized which have been caused by occasional significant seizures (HONLEA 1995).

By converting the drug seizures into dosage units, it becomes evident that ATS accounted for more than two thirds of all the drugs seized in 1993 – 1994. Variation in cocaine seizures is also clearly shown (see Fig. 10). Recent years have seen an increase in the availability of South-East Asian heroin in Sweden. Heroin is frequently smuggled into Sweden by air courier from Thailand. The increase in supply of heroin from the Golden Triangle may be attributed to several factors, in particular the establishment of contacts with couriers in Swedish prisons. Swedish government sources report that Swedish prison inmates tend to regard drug couriers as a source of future income. Frequently, after being released from prison, South-East Asian heroin couriers procure the drug from the source countries for distribution to former fellow prisoners (UNDCP 1995).

Heroin is by far the most expensive drug in the Swedish illicit drug market, costing at retail level around US$300/g. Cocaine costs only half the price of heroin. The retail price of ATS and of cannabis was US$50/g and US$14/g, respectively, in 1994. Prices were fairly stable over a 10-year period, with the exception of the ATS price which decreased by more than 20% during 1992 – 1994. The price fall fits well into the picture of increasing seizures and high purities of street-level ATS, which could be translated as a supply glut of ATS in Sweden.

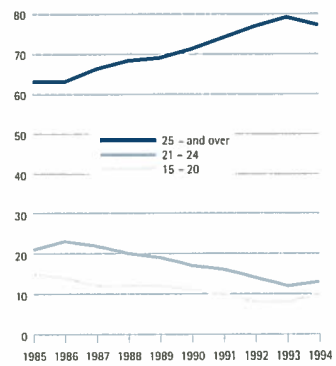
The size of the illicit drug market can be roughly calculated on the basis of seizure data and estimates on purity levels, interception rate, wholesale and retail prices. According to UNDCP calculations, seizures of ATS valued at US$15 million, and of heroin valued at US$10 million were recorded in 1994. Total value for ATS, heroin, cocaine and cannabis was US$40 million. By using an interception rate estimate of 10%, the consumption expenditure in these drugs would have been US$400 million.

Fig. 11: Police arrests concerning all drugs, by suspicious activity.



Source: Folkhälsoinstitutet – CAN, 1996.

Fig. 12: Age distribution of persons brought to trial for narcotics offences.



Source: Folkhälsoinstitutet – CAN, 1996.

5. CRIME AND LAW ENFORCEMENT

The 1970s, 1980s and the beginning of the 1990s have seen a steady increase in reported violent crimes. In 1993 the violent crime rate including homicides, assaults and rapes was 660 per 100,000 inhabitants. The rate for acquisitive crime – including robbery, burglary, thefts of, and from cars, and shoplifting – stood at 5,100 per 100,000 inhabitants. Car thefts have doubled since the beginning of the 1980s.[5]

In 1992, 1,298 persons were imprisoned for drug offences, representing 9.4% of annual admissions of all criminals. During the same year twice that number of persons were imprisoned for drunken driving. By comparing prison admission and judicial statistics, it seems that around 17% of drug law offenders receive a prison sentence. Waiver of prosecution was applied to 12% of persons found guilty. The rest of the offences would have been fines and other alternatives to imprisonment. According to judicial statistics around a third of drug law offenders have been sentenced to prison since 1985, which suggests that one half of prison sentences do not eventually lead to imprisonment. However, the imprisonment rate rose to 25% in 1994, which implies that, lately, heavier measures have been applied in treating drug-related crime. A typical Swedish drug law offender is male, over 25 years-old, and has been arrested and punished for cannabis or ATS possession.

The situation in 1993 was as follows:

a) 86% of offenders were male;

b) 84% of those arrested were accused only of possessing drugs (see Fig. 11);

c) 51% of convictions were related to cannabis, 44% to ATS stimulants; and

d) 75% were 25 years or older (see Fig. 12).

5) The Swedish crime statistics include all offences reported to the police, regardless of whether or not they ultimately prove to be an offence.

The gender ratio among drug law offenders has been fairly stable during the last 20 years – the share of female offenders varying from around 14 – 16%. Possession offences have gained a greater share in convictions in comparison with the 1980s, stabilizing at around 85% of all convictions. However, the number of use-related police arrests has decreased by 45% from the peak year 1991, due to a decrease in cannabis-related offences. The ageing of drug users is repeated in the statistics of drug law offenders, which partly represent the same persons as user statistics. The ageing pattern is not drug-specific among offenders, but a general phenomenon.

6. DRUG POLICY

Information on the total Swedish government expenditure on drug control was not available. The total allocation during the fiscal year 1992/1993 for the police force was US$1,406 million (Kangaspunta, 1995). By using the share of drug-law offenders of all prison admissions, an ad-hoc approximation of the costs of the drug case load for police would constitute around 10% of the total, resulting in US$140 million. By applying the same estimate to prison costs, imprisoned drug-law offenders would have cost about US$28 million in 1994[6]. The cost of treatment of drug abuse was estimated at about US$150 million in 1991 (UNDCP 1995).

School and municipal social services provide extensive information on drugs. The information measures are based on the principle that individuals are most susceptible to the influence of people in their immediate surroundings such as parents, teachers and friends. Numerous NGOs receive government support to carry out information and activity programmes aimed at youth and parents. Various private organizations are also active in prevention and public information activities (Swedish National Institute of Public Health, 1993).

Possession of drugs for personal use is a specific criminal offence, which entails a sentence of up to six months in prison. In practice, the possession of small quantities of cannabis or ATS may be sanctioned by a fine. Possession of heroin or cocaine, even in very small quantities, is punished by a strict term of imprisonment. Illicit trafficking may be punished with 20 years of imprisonment if there are aggravating circumstances (UNDCP Legal Affairs Section).

Swedish law permits the criminal courts to order treatment instead of punishment if the offence carries no more than one year of imprisonment (Kangaspunta, 1995). Primary care facilities provide most of the residential treatment; other facilities include psychiatric hospitals, self-help facilities, family care, etc.[7]

Analysts of the Swedish drug control model suggest that opposition to drugs serves to strengthen a threatened national identity in a situation where the traditional 'Swedish model' of a welfare state has come under increasing pressure due to changes in the country's economic situation. Harm reduction in general and syringe exchange in particular have been regarded as conveying an ambiguous message about society's attitude to drug abuse, although syringe exchange programmes have been tried in Malmö and Lund on a provisional basis (Tham, 1995; Gould, 1994; National Institute of Public Health, 1993).

Methadone-assisted rehabilitation of heroin addicts has been implemented, and in 1993, around 450 persons participated in various methadone treatment programmes (Swedish National Institute of Public Health, 1993).

The 1992 Addict Survey (Olsson et al., 1993) estimated that up to 49% of heavy drug users are known by social services, 30% by health services, 12% by residential treatment centres, 44% by police, and 34% by the National Prisons and Probation Administration. Altogether, 86% of drug addicts are known by some authority and 60% by two or more authorities.[8] Welfare services are not obliged to report the identities of drug users to law enforcement bodies, which may explain the high share of drug abusers registered by them.

6) The figure is an average from the total costs of fiscal years (FY) 1993/94 and 1994/95. The Swedish fiscal year starts 1 July.
7) Family care is a Swedish speciality. Private persons provide temporary homes for addicts, the costs being borne by the municipality. In 1993, the family care programme comprised 350 families receiving normally one client each (National Institute of Public Health, 1993).
8) However, this estimate is based on a capture-recapture method that might be affected by increased cooperation between different authorities and it may lead to an underestimation of the size of the unidentified drug addict population (Olsson et al., 1994). However, the identity of an individual drug user was concealed by means of a personal code.

SOURCES AND/OR BASIS OF CALCULATION FOR THE SUMMARY STATISTICS

1. – 3., 5., 6.	UN 1996
7. – 10., 12. – 14.	UNDP 1995, 1996
11.	Eurostat 1995
15., 16., 22. – 24., 27., 34., 38. – 40.	Folkhälsoinstitutet, Centralförbundet för Alkohol- och Narkotikaupplysning (CAN) 1996
17. – 21.	Olsson et al. 1994
25.	WHO 1995
26., 32., 33., 35., 44.	UNDCP Annual Report Questionnaires database
28. – 31.	Council of Europe 1995
36., 37., 42.	Kangaspunta 1995

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Thailand • Summary Statistics

BACKGROUND

1.	Population (1994)	59,095,000
2.	Population growth rate, (%) (1990 – 1994)	1.4
3.	13 – 29 year-old population (1991)	20,076,000
4.	Share of urban population, (%) (1993)	20
5.	Deaths/1,000 (1990 – 1995)	6.1
6.	Births/1,000 (1990 – 1995)	19.4
7.	Real GDP per cap, US$ (PPP$ 1993)	6,350
8.	HDI rate (1993)	0.832
9.	HDI rank (1993)	52
10.	Real GDP per capita (PPP$) rank minus HDI rank (1993)	-3
11.	Unemployment rate, (%) (1993)	1.5
12.	Social security benefits as (%) of GDP (1993)	0.1
13.	Share of education of total public expenditure, (%) (1992)	19.6
14.	Share of health of total public expenditure, (%) (1990)	12

EXTENT AND PATTERNS OF DRUG USE

15.	Lifetime prevalence of drug use among 12 – 24 year-olds, (%) (1992)	n.a.
16.	One-year prevalence of drug use among 12 – 24 year-olds, (%) (1992)	n.a.
17.	Number of dependent users (1993)	1,270,000
18.	Share of males among dependent users, (%) (1992 – 1994)	>90
19.	Estimated number of dependent heroin users (1993)	214,000
20.	Share of persons under 21 years among dependent users, (%) (treatment clients, 1992)	11.7

CONSEQUENCES OF DRUG USE

21.	Percentage of injectors of dependent users (treatment clients, 1994)	>66
22.	Cumulative AIDS cases per 100,000 people (1995)	37.1
23.	Share of IDU-related AIDS cases in 1995, (%)	n.a.
24.	Drug-related deaths per 100,000 people	n.a.
25.	Share of under 25 year-olds of all deaths, (%) (1991)	n.a.
26.	Share of under 25 year-olds of drug-related deaths, (%)	n.a.
27.	Annual trend in the number of drug-related deaths, (%)	n.a.

ILLICIT DRUGS MARKET

28.	Price of heroin at retail level, US$/g (1996, not pure)	5.0 – 6.7
29.	Price of cocaine at retail level, US$/g	n.a.
30.	Price of amphetamine at retail level, US$/g (1992, not pure)	9.8 – 11.8
31.	Price of cannabis at retail level, US$/g (1996, not pure)	0.1
32.	Consumption expenditure on illicit drugs, US$ million (1993 – 1994)	1,100 – 1,900
33.	Consumption expenditure on heroin, US$ million (1993 – 1994)	450 – 820

CRIME, LAW ENFORCEMENT AND DRUG POLICY

34.	Annual trend in the amount of seizures, (%) (converted into dosage units, 1990 – 1994)	+18.2
35.	Retail market value of seized drugs, US$ million (1993 – 1994)	20 – 24
36.	Offences of acquisitive crime per 100,000 people (1993)	96.3
37.	Offences of violence per 100,000 people (1993)	45.5
38.	Persons arrested for drug offences per 100,000 people (1993)	205
39.	Annual trend in the number of persons found guilty for drug offences, (%) (1990 – 1994)	+19.6
40.	Share of possession and consumption offences of all drug law offences, (%) (1993)	93
41.	Share of incarcerations of all drug law offenders found guilty, (%)	n.a.
42.	Average length of prison sentences for drug-related offences, months	n.a.
43.	Share of prevention and treatment of the public drug control budget, (%) (1995)	n.a.

For sources and/or basis of calculation please see the end of this country profile

1. BACKGROUND

Thailand's population was estimated at 59.1 million in 1994. The population grew by 2.4% annually during 1960 – 1993, but the rate is expected to fall to 1.0% between 1993 – 2000, due to a vigorous family planning programme begun in 1971 (Economist Intelligence Unit, 1995; UNDP, 1996).

Thailand's population is one of the most homogenous in South-East Asia. The main minority groups are in the northern and southern extremes of the country. In particular, the government has had to tackle economic, political, and social problems relating to some 600,000 hill tribes people living in the northern hills on both sides of the border with Lao PDR and Myanmar. Opium is cultivated in the area, but production has steadily fallen in recent years (Economist Intelligence Unit, 1995).

Approximately one million Muslim Malays live in the far south of the country. Because of their historical association with the Malay States across the border, they are less integrated into Thailand's culture and way of life. Although the government has recently been more accommodating to their cultural traditions, some Muslims wish to secede and a small minority still takes to arms in pursuit of their cause (Economist Intelligence Unit, 1995). Thailand's population is becoming increasingly urbanized, although the share of the urban population was still only 20% in 1993.

Health indicators like life expectancy (69 years), infant mortality rate (37 per 1,000) and access to health services (90%), support the view that Thailand is better off than its neighbours and many other low or middle income countries. However, Thailand has one of the highest rates of HIV infection in Asia (see Part 3 for more on HIV/AIDS). Around 12% of government expenditure was spent on health in 1990.

Thailand has long had a system of universal primary education, which was highlighted by a high adult literacy rate of 93.5% in 1992. The border areas remain pockets of low literacy in the Thai language. Among schoolchildren of the relevant age, 33% were enrolled for secondary education. This ratio should increase rapidly in the next few years as the government moves towards nine years of compulsory education. Tertiary education is concentrated among urban citizens. Education accounted for 20% of government spending in 1990 (UNDP, 1996).

Thailand's economically active population was estimated at 33.8 million in 1994. Rapid economic growth, particularly in the manufacturing and service sectors, has reduced the traditional dominance of agriculture which accounts for only 12% of GDP, but provides employment for some 56% of the population. The percentage of women in the workforce at 44% is high by Asian standards (UNDCP, 1996a). Manufacturing accounted for 10.7% of the labour force in 1994. The unemployment rate was only 3.3% in 1994 due to increased demand for industrial labour (Economist Intelligence Unit, 1995).

2. EXTENT AND PATTERNS OF DRUG USE

In the 1993 survey, the number of persons addicted to different drugs was held to be 1.27 million. Narcotics addicts were defined as 'heavy users' of one or more of the following substances – inhalants, cannabis, amphetamine-type stimulants (ATS), heroin, and opium.[1] It was found that the largest group of addicts was using inhalants, followed by cannabis, ATS, heroin and opium. In the Bangkok metropolitan area the two most prevalent drugs were heroin and ATS, whereas inhalants were the drug of choice in the north-eastern part of the country, indicating sharply different patterns of drug use in the urban and rural areas (see TDRI 1995).

According to the TDRI study, more than 70% of the addicted population worked in agriculture; however, since 80% of Thais still live in non-urban surroundings, overall rural prevalence rates are low.

1) The ordering is definite only at 68% confidence level.

The highest prevalence rates were found among truckers (56%), tuk-tuk (three-wheeled vehicles) drivers (41%), fishermen (30%) and bus drivers (29%).

About 45,000 new illicit drug consumers are reported each year, and tend to be 20 to 35 years old. Users of cannabis, ATS, heroin and tranquillizers are between 21 and 25 years of age, opium consumers tend to be older, between 21 and 60 years, and volatile solvents consumers tend to be younger, between 15 and 19 years. Most illicit drug users are male (UNDCP, 1995).

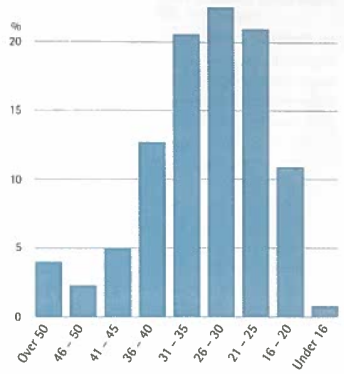
Heroin abuse is reported to be spreading in the Northern Highland area among the hill tribes, especially among former opium consumers. Heroin is increasingly injected rather than smoked (UNDCP, 1996a). Use of ATS, especially methamphetamine, is considered to be a major drug problem by the government. It is produced locally and its use is widespread among blue-collar workers, students and youth (Office of the Narcotics Control Board, (ONCB), 1993).

3. CONSEQUENCES OF DRUG USE

In 1992 the total number of drug-dependent persons admitted for treatment in Thailand was 32,120. Of these, 83% were heroin abusers and 8.8% were opium abusers. Volatile substances, cannabis and ATS were other important groups, together with alcohol. The largest age group was the 26 – 30 age group (23%) (ONCB, 1993, see Fig. 1). The Office of the Narcotics Control Board (ONCB) gathered information on addiction treatment clients in Bangkok for 1992 – 94. The overwhelming majority, 96.5%, were dependent on heroin, and their share was growing during the time period. The share of amphetamine dependent clients grew fastest, but they were still a marginal group, representing 0.2% of the total number of treatment clients.

Inhalants and ATS were most prevalent among 15 – 19 year-olds, and opium addicts were considerably older than the rest. Cannabis and heroin were most often the principal drugs of 20 – 24 year-olds. This age group was also the largest for all the treatment clients owing to the large numbers of heroin users.

Fig. 1: Age distribution of drug treatment clients in Thailand 1992.



Source: ONCB, 1993.

The proportion of students and unemployed among treatment clients had increased, whereas that of construction workers decreased during 1992 – 94. This supports the view that motives for taking drugs may be changing from improving performance and overcoming fatigue towards pleasure-seeking. This trend has been noticed in the literature and explained by the rapid socio-economic changes in the Thai society (see Spielmann, 1994). According to the treatment data from Bangkok, treatment clients were 23 times more often unemployed than the general population in Thailand. This is a significant indicator of the marginalization of drug users in a country where unemployment is very low.

HIV has mainly been transmitted through intravenous drug use and by commercial sex workers in Thailand. HIV infection rates among IDUs rose rapidly to 40 – 50% among injecting drug users in the late 1980s – early 1990s, after the detection of the first seropositive IDU in 1987 (Stimson, 1993). Another area with a high prevalence of HIV infection is the northern area bordering with Myanmar. In these areas injecting drug use is common. In the late 1980s, IDUs may have represented up to

60% of all those infected. The share has decreased since then, as sexual transmission has grown in importance (UNDCP, 1995; Mann et al., 1992).

In Thailand, commercial sex is widely available, especially around major tourist destinations. A large proportion of sex outside marriage is with commercial sex workers. A study found that 44% of Thai men had their first sexual experience with a prostitute at an average age of about 18 years. New military recruits had an HIV prevalence of 3.7% in 1992 (WHO, 1994).

By the end of 1995, 22,135 AIDS cases had been reported to WHO. In 1995 the government estimated the number of HIV-infected people in Thailand at 750,000 (Country Programme Framework Thailand 1996 – 1997) or 1.3% of the total population. It has been gauged that the annual cost of HIV/AIDS prevention and control activities by the year 2000 could reach US$9 billion.

DAI and DATI

The Drug Abuse Index shows that opiates are Thailand's main problem. ATS rank as the second drug of importance. Inhalants and cannabis get the same rankings, but cannabis gets more rankings of 'cost components', as opposed to the 'use component' (see Fig. 2).

The Drug Abuse Trend Index depicts the trends that equate ATS with the most problematic developments. Opiates have also strongly increasing trends. Inhalants and cannabis both show the same development – while the number of treatment cases is decreasing, use seems to be growing. In Thailand's case the number of seizures has been used to indicate the trend in non-dependent use because the relevant data was unavailable, and because seizure figures normally correlate with changes in drug use patterns. It may be, however, that the growth in the number of seizures owes more to increased law enforcement efforts than to increases in use. Another possible explanation is the emergence of a new user population that cannot yet be seen in treatment statistics. Cocaine use is probably restricted to a small and privileged part of the society. Seizure data suggest that its use is decreasing (see Fig. 3).

Fig. 2: Drug Abuse Index (DAI) – Thailand.

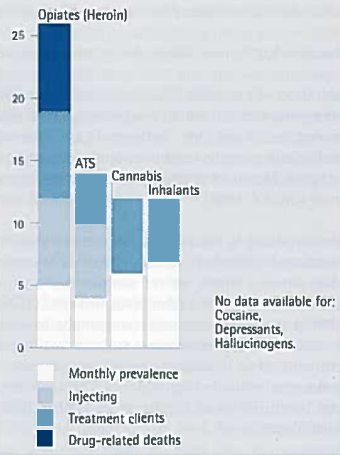
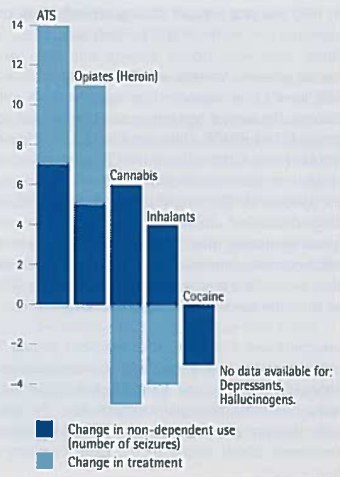


Fig. 3: Drug Abuse Trend Index (DATI) – Thailand.



4. ILLICIT DRUGS MARKET

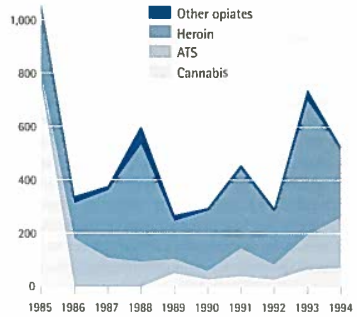
Illicit drug manufacturing and trafficking organizations operate actively in the border regions between the Lao People's Democratic Republic, Myanmar and Thailand, an area known as the Golden Triangle. Domestic poppy cultivation has been reduced in Thailand by the government's alternative development initiatives, supported by UNDCP and other donors. Thailand is currently a net importer of opiates. The latest estimates put the cultivation area at under 2,000 hectares, down from almost 9,000 hectares in the mid-1980s.

Cannabis is cultivated mainly in the north-eastern parts of Thailand, although the cultivated area has been reduced in recent years. Cannabis production is roughly 200 – 300 tonnes according to the Thai authorities (Thailand, 1995). However, Thailand remains a major transit country for opiates, largely from Myanmar, and to a lesser extent from Lao PDR. Bangkok is a major centre for organizing and financing the illicit drug trade in the region. Traditional informal arrangements as well as financial institutions are used to transfer and launder drug money (UNDCP, 1996a).

Only occasionally have heroin laboratories been found and destroyed in Thailand in recent years. One sizeable heroin refinery was destroyed in 1995 (US Department of State, 1996). Illicit amphetamine and methamphetamine production have also been reported.

The 1990 – 1993 sum of precursor seizures converted into potential drug dosages reached 5.2 million units. Of the precursors, 70% were to be used in methamphetamine manufacturing, and the rest to convert morphine base into heroin. Drug seizures converted into dosage units show that in 1994 slightly more than 50% of the total were opiates, 36% ATS and 13.5% cannabis. ATS seizures had grown at the highest rate during the 1990 – 1994 period, a fact that has raised concern among Thai authorities (see Fig. 4). The street value of all drugs seized in 1994 was around US$20 – 24 million, and that of heroin was US$6.5 – 8.7 million.

Fig. 4: Drug seizures in million dosage units in Thailand.



Source: UNDCP Supply Reduction Section database.

In 1992 – 94, the reported daily expenditure of addicts in treatment in Bangkok city increased 40 – 60% for cannabis, opium and heroin. ATS expenditure rose by 136%, whereas inhalants expenditure rose only by 8%. Although no definitive conclusions can be drawn, in the light of other information it seems plausible to assume that the ATS market was growing rapidly during this period. The rise in expenditure may partly be due to price increases caused by supply shortages; it may also be due to increasing amounts abused per addict, on the assumption that methamphetamine users in particular develop an increasing tolerance for the drug.

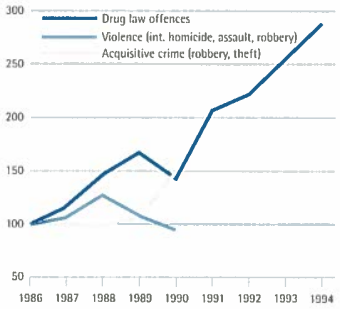
A tentative approximation of domestic drug sales can be reached by combining the reported daily drug expenditure of persons entering treatment in Bangkok and the national drug-user population estimates. By assuming 200 – 365 days of drug use per year, the total expenditure on heroin, opium, cannabis, ATS and inhalants amounted to US$1.1 – 1.9 billion in 1994. Heroin accounted for 42% of the total value. The export receipts of criminal organizations in Thailand cannot be estimated. The street value of drug seizures was 1 – 2 % of the calculated domestic expenditure on drugs.

5. CRIME AND LAW ENFORCEMENT

The crime rates for violence (including intentional homicide, assault, and rape) together with those for acquisitive crime (including robbery and theft) were higher than the rate for drug law offences in 1990. After 1990, the number of drug law offences began to rise steeply. Drug law offences outnumbered the other two offence groups in 1993, although the numbers for violence and acquisitive crime included more sub-groups than the 1986 – 1990 period.[2] No clear connection between violence, acquisitive crime or drug law offences can be found (see Fig. 5). However, more detailed ONCB studies suggest a correlation between drug dependence and crime in Thailand (UNDCP, 1995).

During the early 1990s, over 90% of drug law offences were consumption and possession charges (ONCB, 1994). In 1992, over 635,000 persons were convicted, of whom 54 were sentenced to death and 358 to life imprisonment. The share of drug law offenders of the total was not available. The age distribution of drug law offenders shows that, in comparison to treatment clients, law offenders are slightly younger. This reflects the overwhelming majority of possession and consumption charges of the total of drug offences. Thus, those arrested for drug use tend to be identified earlier in their drug-use career than persons seeking treatment (see Fig. 6). Arrests relating to ATS per capita are relatively high in Thailand, although they amount to only half the rate of Sweden (which, after Belgium, has the highest national arrest rate in the world for ATS of those known to UNDCP; see UNDCP, 1996b).

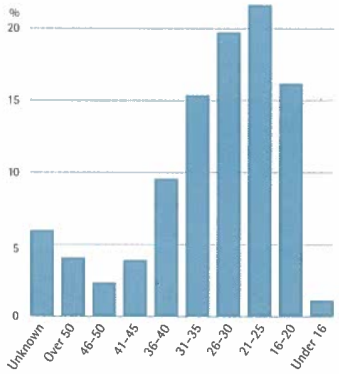
Fig. 5: Indexed trends in violence, acquisitive crime, and drug law offences in Thailand.



1986 = 100; trends are calculated from per capita rates

Source: UNAFEI – AIC, 1994; ONCB, various years.

Fig. 6: Age distribution of drug law offenders in 1992.



Source: ONCB, 1993.

6. DRUG POLICY

Information concerning Thai government expenditure on drug control was unavailable. The national drug control policy emphasizes that in order to curb the spread of drugs both the supply and demand sides of the drug problem must be handled (ONCB, 1993a).

UNDCP's expenditure on drug control in Thailand has been modified in recent years: financing of national projects has been reduced considerably, supply reduction projects have come to an end and more emphasis has been given to demand reduction. A share of UNDCP's regional project expenditure in Asia is spent on Thailand, of which most is allocated to control measures and multi-sectoral projects.

Thailand acted as a pilot country in the implementation of a UNDCP executed project on precursor control from 1994 – 1996 through which several successful initiatives against diversion and trafficking of precursors were taken. Most anti-trafficking measures concentrate on the precursors used in the manufacture of heroin and methamphetamine (UNDCP 1996c).

According to Thai law, the unauthorized possession, production, manufacture, import, export or acquisition of narcotic drugs or psychotropic substances is punishable by a fine, imprisonment or the death penalty, depending on the quantity of drugs involved and on the criminal offence committed (Yodmani, 1992).

Thailand has been preparing money laundering legislation since 1994, and a first draft was submitted to the Thai Cabinet in May 1996. Once this law has been enacted, Thailand will have complied with a major requirement of the UN 1988 Convention.

Indigenous drug dependence treatment, relying solely on herbal medicine, has been applied for centuries in Thailand. Buddhist temples have developed their own model of treatment in which religious ceremonies are integrated with herbal medicine. These treatment programmes benefit from high levels of acceptability and strong community participation. (Poshyachinda, 1982). (See also Part 6).

2) 1993 figures for violence include: murder, attempted murder, manslaughter, manslaughter by negligence, assault, kidnapping, rape. Acquisitive crime includes the categories of theft, snatching, robbery, gang robbery, motorcycle theft, car theft, cattle theft, and misappropriation.

SOURCES AND/OR BASIS OF CALCULATION FOR THE SUMMARY STATISTICS

1., 3., 11., 36. – 38.	National Statistical Office 1994
2., 5., 6.	UN 1996
4., 7. – 10., 12. – 14.	UNDP 1995, 1996
17., 19.	TDRI 1993
18., 21.	Centre for Drug Research 1995
22.	UNAIDS 1996
28., 30. – 35., 44.	UNDCP Annual Report Questionnaires database
39., 40.	ONCB 1991 – 1994

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United Kingdom of Great Britain and Northern Ireland • Summary Statistics

BACKGROUND

1.	Population (1994)	58,091,000
2.	Population growth rate, (%) (1990 – 1994)	0.2
3.	15 – 24 year-old population (1993)	7,723,000
4.	Share of urban population, (%) (1993)	89
5.	Deaths/1,000 (1992)	10.9
6.	Births/1,000 (1992)	13.5
7.	Real GDP per capita (PPP$ 1993)	17,230
8.	HDI rate (1993)	0.924
9.	HDI rank (1993)	16
10.	Real GDP per capita (PPP$) rank minus HDI rank (1993)	7
11.	Unemployment rate, (%) (1993)	10.2
12.	Social security benefits as % of GDP (1993/94)	12
13.	Share of education of total public expenditure, (%) (1993/94)	13.1
14.	Share of health of total public expenditure, (%) (1993/94)	17.2

EXTENT AND PATTERNS OF DRUG USE

15.	Lifetime prevalence of drug use among 16 – 29 year-olds, (%) (1991)	28
16.	One-year prevalence of drug use among 16 – 29 year-olds, (%) (1991)	14
17.	Number of (notified) dependent users (1994)	33,952
18.	Share of males of (notified) dependent users, (%) (1994)	75
19.	Estimated number of dependent heroin users (1991 – 1994)	32,000 – 100,000
20.	Share of persons under 21 years among dependent users notified for the first time (1994)	18

CONSEQUENCES OF DRUG USE

21.	Percentage of injectors of dependent users (addicts notified, 1994)	45
22.	Cumulative AIDS cases per 100,000 people (1995)	20.4
23.	Share of IDU-related AIDS cases in 1995, (%)	10.8
24.	Drug related deaths per 100,000 people (1992)	2.5
25.	Share of under 25 year-olds of all deaths, (%) (1992)	1.8
26.	Share of under 25 year-olds of drug-related deaths, (%) (1990 – 1992)	25
27.	Annual trend in the number of drug-related deaths, (%) (1990 – 1992)	+5.3

ILLICIT DRUGS MARKET

28.	Price of heroin at retail level, US$/g (1995, not pure)	140
29.	Price of cocaine at retail level, US$/g (1995, not pure)	130 – 156
30.	Price of amphetamine at retail level, US$/g (1995, not pure)	17
31.	Price of cannabis (herb) at retail level, US$/g (1995, not pure)	5.2
32.	Consumption expenditure on illicit drugs, US$ million	n.a.
33.	Consumption expenditure on heroin, US$ million (early 1990s)	210 – 1,330

CRIME, LAW ENFORCEMENT AND DRUG POLICY

34.	Annual trend in the number of seizures, (%) (1990 – 1994)	+19.6
35.	Retail market value of seized drugs, US$ million (heroin and cocaine, 1993)	230
36.	Offences of acquisitive crime per 100,000 people (1991)	12,,400
37.	Offences of violence per 100,000 people (1991)	1,620
38.	Persons found guilty for drug offences per 100,000 people (1994)	150
39.	Annual trend in the number of persons found guilty for drug offences, (%) (1990 – 1994)	+20.5
40.	Share of possession offences out of all drug law offences, (%) (1994)	88
41.	Share of incarcerations of all offenders found guilty, (%) (1994)	7
42.	Average length of prison sentences for drug-related offences, months (1994)	25
43.	Share of prevention and treatment of the public drug control budget, (%) (1993 – 94)	31

For sources and/or basis of calculation please see the end of this country profile

1. BACKGROUND

The United Kingdom is composed of England, Wales, Scotland and Northern Ireland. Approximately 88% of the population live in England and Wales, 9% in Scotland and 3% in Northern Ireland. A major post-war development has been the fairly large-scale immigration of persons from the West Indies and the Indian subcontinent (Economist Intelligence Unit, 1994).

The most remarkable trend in the population has come from changes in its geographical distribution. For the first half of this century conurbations were steadily expanding, but since then their populations have stabilized or declined, with the most rapid decline taking place in the inner city areas (Economist Intelligence Unit, 1994).

The UK's complex social system regarding unemployment, sickness and widows' benefits, retirement pensions, child benefits, etc., was radically changed in the late 1980s with the introduction of a new system of income support and family credit. The aims of the reform were to reduce the cost of social security and to target benefits more directly at those in need. In 1993/94 up to 35.9% of public expenditure was accounted for by social security. Health expenditure amounted to 17.2% of total public expenditure in 1993/1994. Most treatment through the publicly funded National Health Service is free of charge (Economist Intelligence Unit, 1994).

Most children in the UK attend the state schools or state-funded church schools, but more private schools derive their income entirely from fees than in other European countries. In 1991/92 slightly less than half of 16 – 18 year-olds in the UK remained in full-time education (Economist Intelligence Unit, 1994).

The unemployment rate in the UK stayed around 10% at the beginning of the 1990s, leaving 2.9 million persons seeking work in 1993. Special employment and training measures are targeted to the young, the unskilled and the long-term unemployed (Economist Intelligence Unit, 1994).

2. EXTENT AND PATTERNS OF DRUG USE

The 1992 British Crime Survey (BCS) provides information on self-reported drug misuse from a large, nationally representative random sample of people living in private households in England and Wales. As the authors of the study admit, the figures suffer from certain limitations – homeless people and those living in institutions are omitted from the survey, and some people refused to take part in or to answer some of its questions. Thus, the heaviest drug misusers may not be properly represented in this kind of survey and the figures probably should be taken as minimum estimates of the extent of drug abuse.

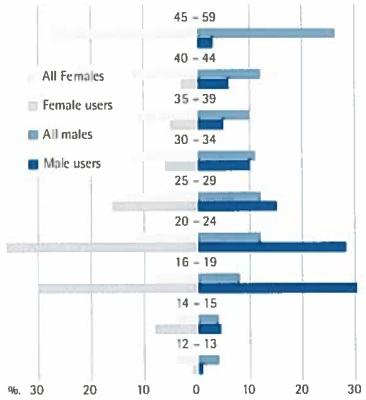
According to this survey, 17% of the 12 – 59 year-old population in England and Wales had tried an illicit drug at least once by 1991. Over one third of them (6% of those surveyed) had used drugs illictly during 1991. Of the 16 – 19 year-olds, 31% and 28% of the 20 – 24 year-olds had tried illicit drugs at least once by 1991.

Furthermore, a number of studies show that the greatest growth in lifetime prevalence appears among 14 – 15 year-olds and to a lesser extent among 12 – 13 year-olds (ISDD, 1994, p. 30). An analysis made of drug education amongst teenagers found that only 13% of children aged 12 – 13 considered they received enough information on drugs in school.

The researchers came to the conclusion that drug education should be extended for both age groups (Dowds, L., Redfern, J., 1994). Other studies have found that in inner-city areas 42% of 16 – 19 year-olds and 44% of 20 – 24 year-olds have taken illicit drugs at some time, with between 20 – 30% of the 16 – 29 age group using a drug in the last year (ISDD, 1994).

Fig. 1 indicates that 14 – 29 year-olds are over-represented in the illicit drug using population in comparison to the general population, both male and female; thus, this age group deserves to be called a 'population at risk'. It comprises 23% of the general population or some thirteen million people. There is a slight difference between the distribution

Fig. 1: Age distributions of illicit drug users and general population in percentages in 1991.



Source: 1992 BCS.

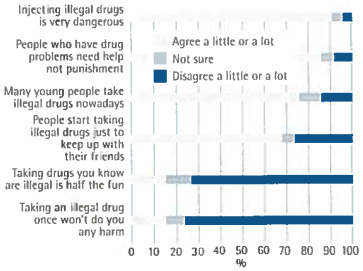
of male and female users – the male users are more concentrated in the age group 16 – 19, whereas for females the higher prevalence is in the 20 – 24 year-old group.

The share of 16 – 29 year-old males who took illicit drugs in 1991 is almost double that of females. Registered drug abusers are also predominantly male, e.g. 75%, in 1994 (Home Office, 1995a). Males are also more often offered drugs than females.

Cannabis is the most widely used illicit drug. According to the BCS study, 14% of 12 – 59 year-olds had tried it at least once and 5% had used it in 1991. Of the 16 – 29 year-olds, about a quarter had tried cannabis and half of them had used in it 1991. Other rather commonly used drugs among 16 – 29 year-olds are amphetamines (4% of the respondents aged 16 – 29), LSD (3%), ecstasy (3%) and 'magic mushrooms' (2%). Cocaine was used by 1% of all the persons and heroin by 0.1% of the males in the same age group (BCS 1992).

According to a study on the attitudes among 12 – 15 year-olds, illicit drugs are considered to be harmful by 85% of the questioned. About three-quarters of the surveyed pupils agreed "a lot or a little" that many young people take drugs nowadays. The result may reflect more the visibility of drug abuse than actual figures, while the overwhelming majority of youth does not use illicit drugs (Dowds, L., Redfern, J., 1994; see Fig. 2).

Fig. 2: Attitudes to drug use among 12 – 15 year-olds.



Source: Dowds, Redfern, 1994.

The 'drug addicts notified to the Home Office' statistics are gathered from all doctors[1] who are required by law to notify to the Home Office of a patient they suspect, or know to be, addicted to certain drugs.[2] In 1991, up to 93% of 20,820 notified drug abusers were addicted to opiates or their synthetic substitutes, of whom 16,964 were reportedly taking heroin. Due to incomplete reporting and other obstacles in reaching the whole opiate addict population, it has been suggested that this number represents one fifth to one third of all opiate addicts (ISDD, 1994; Dorn, Baker, Seddon, 1994).

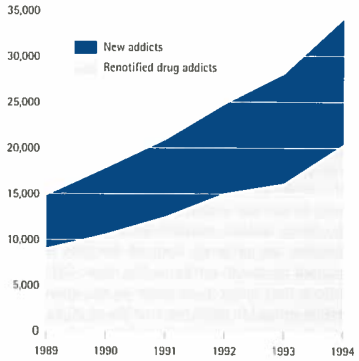
As for other drugs, the estimates for the number of dependent users as opposed to non-dependent, recreational users are virtually non-existent for the UK. The 1992 British Crime Survey provides the following figures for selected drugs: 1,297,000

1) This includes medical practitioners in general medical practice, hospitals, treatment centres, or who work as police surgeons or prison medical officers.
2) In the UK, the legal criterion for identifying an addict is that they should have an overpowering desire to continue taking one or more of 13 opiates and their synthetic substitutes or cocaine stated in the list of 'notifiable' drugs mentioned in the Misuse of Drugs Act and its regulations (ISDD, 1994).

past-year users of cannabis, 432,000 of ATS, 314,000 of ecstasy, and 292,000 of LSD. It is not possible, however, to describe these populations as 'addicts'. Nothing is known about the intensity of consumption, only that they had used the drug at least once during the year before the survey. The scarcity of data for these drugs may be explained by the fact that the UK authorities have traditionally directed most of their efforts to limiting heroin-induced abuse problems.

The number of drug addicts notified to the Home Office has steadily increased for several years. It almost doubled between 1990 – 1994 (see Fig. 3). Around 20,500 notifications of drug addicts came

Fig. 3: Drug addicts notified to the Home Office.



Source: Home Office Research and Statistics Department, 1995a.

from hospitals and treatment centres and 15,600 from general medical practioners in 1994. Some of the rise may reflect increased efforts to attract more addicts to seek medical treatment, or the continuing development of treatment services (Home Office, 1995a).

The average age of persons notified for the first time remained at slightly under 27 years during the early 1990s, but in 1994 the average age lowered to 26.4 years. Newly-registered female addicts are about six months younger than males. The percentages of new addicts notified to the Home Office aged up to 21 are slightly increasing both for males (15.6 for 1990, 16.8 for 1994) and females (20.6 for 1990, 22.7 for 1994) possibly indicating a moderate expansion of abuse. This is in line with the data related to newly notified addicts with respect to all notified addicts for each year (38% for 1989; 39.7% for 1994; Home Office, 1995a).

3. CONSEQUENCES OF DRUG USE

In the UK, 45% of all notified drug addicts and 51% of new addicts admitted to injecting drugs (Home Office, 1995a). Of the 23,104 HIV infections accumulated by the end of 1994, 12 – 13% were transmitted through injecting drug use, whereas 8.8% of the cases reported in the year 1994 were due to IDU. In 1995 all IDU-related AIDS cases – including those transmitted by sex with IDUs and mother-to-child infections from an IDU mother – represented 10.8% of the total. By the end of 1995 the UK had reported 11,872 AIDS cases to the European Centre for the Epidemiological Monitoring of AIDS.

Over two thirds of treatment clients are opiate users, mainly consumers of heroin or methadone. Other drugs reported, though in much lower numbers, are, in order of importance: ATS, cannabis, depressants, cocaine, inhalants and hallucinogens. Around half the patients were enrolled in community-based drug services in 1993. These services are non-residential and are provided by multidisciplinary teams which may either provide a contact facility linked to a hospital, or may be totally 'free standing' (Department of Health, 1995).

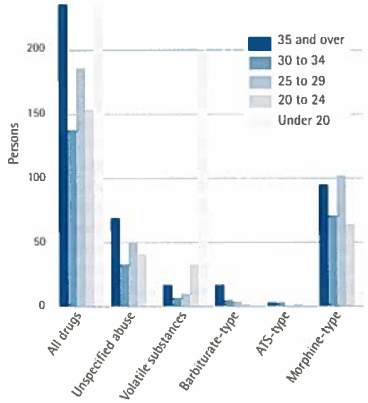
The number of drug-related deaths, as reported by the Home Office – which includes accidental poisoning, suicide and drug-related AIDS cases[3] – increased during 1988 – 1992 from about 1,200 to more than 1,400 each year. These figures also include non-notifiable and non-controlled drugs. Deaths involving only alcohol and tobacco are excluded (Home Office, 1995a).

3) The deaths are classified using the Ninth Revision of the International Classification of Diseases (ICD.) In the case of a death involving drugs, the exact ICD code assigned to the death depends on the amount of, and accuracy of, the clinical and pathological assessments supplied on the death certificate and on the judgement of the coder.

Volatile substances cause the greatest death toll among those under 20, whereas opiates (including heroin, methadone and dihydrocodeine) are responsible for most of the deaths among persons aged 20 years and over. ATS use seems also to pose a risk to youth under 20 (see Fig. 4).

A notably low number of deaths has been attributed to cocaine (three persons during 1990 – 1992); cannabis (0) and hallucinogens (3). The abusers with the greatest problems seem to be polydrug users, and this is shown in the high number of deaths classified as 'morphine with other drugs', 'combinations excluding morphine', 'unspecified drug dependence' or 'other, mixed, unspecified non-dependent abuse' (Home Office, 1994).

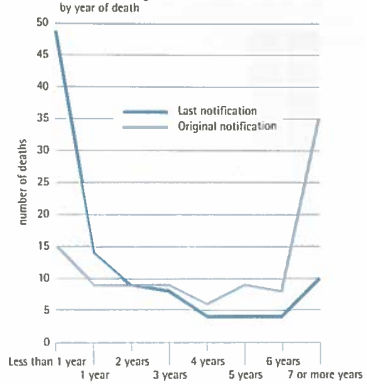
Fig. 4: Deaths due to drug dependence or non-dependent abuse in 1990 – 1992 by type of drug and age.



Source: Home Office Research, and Statistics Department, 1994.

The Home Office mortality statistics suggest that the length of a known drug career (starting from first notification to the Home Office) leading to death is slightly under six years on average. However, the largest number of deaths within any

Fig. 5: Deaths of notified drug addicts in the UK, 1990 – 1992.
Time between original and last notifications and death by year of death



Source: Home Office, Research and Statistical Department, 1994.

single year of the abuse career of a notified drug addict occurs within the first year of the first notification and within one year of the last notification, which suggests that problem drug users seek help when their health has already seriously deteriorated (see Fig. 5).

DAI and DATI

Opiates and ATS gather the same amount of rankings in the Drug Abuse Index, although opiates have a significantly higher share of 'cost components'. Apart from these two predominant drug categories, illicit drug use in the UK – and its consequences – are spread fairly equally among all the other drug categories included in the analysis (see Fig. 6).

The Drug Abuse Trend Index reveals differences between the drugs more clearly. Opiates and cocaine have the strongest and exclusively positive trend rankings, whereas ATS, inhalants and hallucinogens have mixed trends. Depressants are clearly on their way to becoming marginal drugs in the UK (see Fig. 7).

Fig. 6: Drug Abuse Index (DAI) – UK.

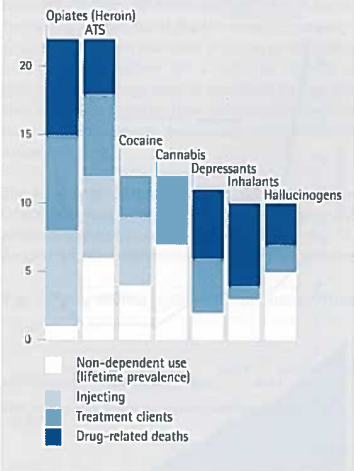
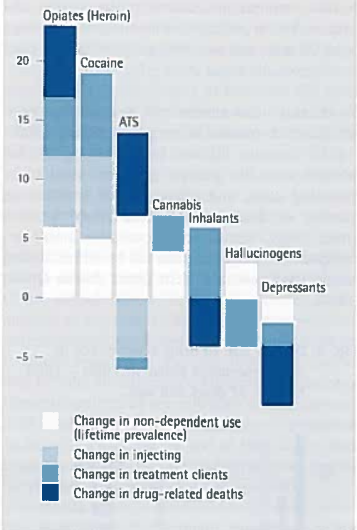


Fig. 7: Drug Abuse Trend Index (DATI) – UK.



4. ILLICIT DRUGS MARKET

The UK could be characterized as primarily a consumer country for illicit drugs. This is illustrated by the usual pattern whereby HM Customs and Excise make well over 80% of seizures, in terms of weight, at the national borders, while police seize the rest inside the country. The police were responsible for 93% of the number of seizures in 1994 (Home Office, 1995b).

Between 1990 and 1994 there was an eight-fold increase in the number of ecstasy and a substantial increase in the number of other ATS seizures, which may reflect their growing popularity as 'dance drugs'. The number of all ATS seizures were more than twice those of heroin and cocaine together. Cannabis is by far the most commonly seized drug, measured both by quantity (in weight or in dosage units) and number of seizures. Opiates are still the second drug of importance followed by cocaine and ATS, if quantities in dosage units are considered.

Globally it has been estimated that around 30% of cocaine and 15% of heroin is seized (CND, E/CN.7/1996/9). In 1994 cocaine seizures were triple those of heroin by weight. If one assumes that the global ratios of cocaine and heroin seizures are applicable to the UK, it appears that the number of persons seeking treatment due to cocaine addiction is very low (3,110 in 1994), suggesting that cocaine users either avoid seeking treatment or that they cope with their use without the intervention of health care professionals.

In the case of heroin, prices have moved between US$38,000 – 52,000/kg at the wholesale level, and US$100 – 175/g at retail level. Purities vary from 40% to 65% at wholesale, and from 20% to 50% at the retail level (1990 – 1994 ARQs).

Wholesale prices of cocaine have fluctuated between US$36,000 and 46,000/kg in recent years

(1993 being the latest available year).[4] At retail level this substance cost US$90 – 140/g. Average purities fluctuated between 50% and 80% for wholesale and 25% to 60% for retail level (1990 – 1994 ARQs).

To gauge the value of the drugs market, several estimations, such as number of users, quantities per user per year consumed, and prices, must be known. In the case of heroin, the value and amount of drugs sold to dependent heroin users has been estimated (see Dorn, Baker, Seddon, 1994). The study calculates that in the early 1990s annual consumption of dependent users reached 2,400 to 6,000 kg[5] of 'street-level' heroin, with a retail value of US$211 million to US$1,06 billion.[6]

5. CRIME AND LAW ENFORCEMENT

An example of an 'effectiveness indicator' for law enforcement is called an interception rate in the literature (see Wagstaff, A., Maynard, A., 1988). This indicator compares the amounts seized to the estimated total size of the market. Using the above information on heroin consumption, HM Customs have an interception rate of 12 – 25% which implies a higher current rate of effectiveness than during 1980 – 1984. During that period the highest interception rate (in a range of 9 – 19%) was measured in 1984 (see Wagstaff, A., Maynard, A., 1988). However, the rate is naturally sensitive to the underlying assumptions. For example, a similar increase might also be caused by underestimating the number of drug addicts, and thus the size of the heroin market. Sutton and Maynard (1994) suggest an interception rate of only 9.4% for HM Customs in 1990. Nevertheless, their figures for the 1980s also show a slowly growing trend in the interception rate.

Another way to measure the impact of law enforcement activities is to estimate the street value of seized drugs. Tentative estimates for the seizures of cocaine and heroin in 1993 are US$110 million and US$120 million respectively.[7] However, the quantity of cocaine seized in 1993 was low compared to 1992 and 1994. Assuming that all the other factors apart from quantities were equal, the street value of seized cocaine in 1994 would be US$360 million and that of heroin US$140 million.

Acquisitive crime is thought to be the element of drug-related crime that most affects the public (Tackling Drugs Together, 1995). Dorn, Baker and Seddon (1994) estimate that a minimum of US$ 33.8 million to a maximum of US$507 million of the consumption expenditure on heroin is financed by acquisitive crime. This represents a greater cost to victims of the crimes due to large 'discounts' in the value of stolen property. The authors assume that the addicts are only able to convert one third of the real value of the stolen goods into cash. Therefore, the cost to victims may be calculated at US$101 million to US$1.52 billion. This sum is equivalent to between 1% and 21%[8] of the annual cost of all acquisitive crime reported to the police in England and Wales in 1992.

During 1981 – 1991 the estimates of the British Crime Survey (BCS) for the number of acquisitive crime offences in England and Wales almost doubled. In 1991 they stood at 6.2 million, which meant 12,400 offences per 100,000 people. During the same year, the ratio for vandalism and violence stood at 5,400 and 1,620, respectively. Of all crimes mentioned in the 1992 BCS, only 43% were reported to the police (Home Office, 1992). However, it is not known which percentage of these offences were related to illicit drugs.

Law enforcement statistics mainly record outcomes of action taken under the Misuse of Drugs Act 1971, which include all those drugs for which addiction must be notified (opiates, cocaine) and drugs such as cannabis, LSD and ATS. The Act divides drugs into three categories (A, B and C). The strictest control (Class A) applies to drugs such as heroin and cocaine which are considered to have

4) Prices are 1989 – 1993 averages of reported minimum and maximum prices.
5) The paper assumes the number of dependent users to be 31,894 to 79,735.
6) An exchange rate of US$ 1.76/£ sterling was used in this calculation.
7) The following estimates were necessary to calculate the figures – share of wholesale level cocaine of total seizures, average purities at wholesale and retail level and average street prices. Therefore, the result is a product of several estimates of limited reliability.
8) Note that different unknown denominators have been used for the two percentage figures.

Table 1. Persons found guilty, cautioned or dealt with by compounding for drug type and year.

Type of drug	1990	1991	1992	1993	1994
Cocaine	860	838	913	1,671	1,804
Dipipanone	37	20	22	10	10
Heroin	1,605	1,466	1,415	2,164	2,971
LSD	915	1,200	1,428	1,891	1,878
Ecstasy	286	559	1,516	1,577	1,881
Methadone	154	145	191	10	11
ATS	2,330	3,532	5,653	7,622	8,546
Cannabis	40,194	42,209	41,353	56,417	72,392
Other	1,415	1,276	1,220	3,614	3,673
All drugs	44,922	47,616	48,927	69,735	86,961

Remarks: Rows cannot be added to produce totals.
Source: Home Office, 1995b.

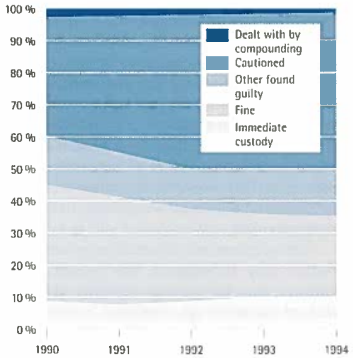
the greatest abuse potential. The number of drug law offenders has almost doubled during the 1990s from 44,900 to 87,000 persons. About 21% of the growth is due to changed recording practices, but this still leaves a high genuine growth in drug offences.

The age distribution of offenders remained quite stable during the 1990s, their average age being between 24 and 25 years. Males accounted for 91% of all the offences in 1994 (Home Office, 1995b).

Cannabis outnumbers all the other drugs in the number of offences, corresponding to 80% of the total in 1994. Possession of cannabis represents 94% of all cannabis offences and three-quarters of all illicit drug offences. The number of ATS offences rose by 267% from 1990 – 1994, when they represented around 10% of the total drug law offences. Although still a relatively small share of the total, ecstasy, cocaine and LSD offences also grew at a considerable rate (see Table 1).

Persons convicted or otherwise found guilty are dealt with by punishments of varying severity. The share of persons cautioned has grown constantly, implying an effort to keep minor offences out of courts and indicating reduced stringency of the law enforcement.[9] A little more than half the offenders (mainly concerning possession of cannabis) were cautioned in 1994. Monetary penalties, i.e., fines and 'compounding'[10] were given to a quarter of offenders. The share of monetary offences has decreased on a par with the growth of cautionings. Immediate custody was applied to 7 – 8% of

Fig. 8: Persons found guilty for drug offences by punishment.



Source: Home Office, 1995b.

9) Cautioning creates a criminal record without punishment on first offence. If the offence is repeated, it is treated as a second offence.
10) 'Compounding' was introduced in 1982. It is a payment of a penalty in lieu of prosecution for cases involving the import of small quantities of cannabis resin, or herbal cannabis for personal use.

offenders (see Fig. 8). The average length of custody sentences stayed at around two years during the 1990s. Other offenders received probation or community service orders (Home Office, 1995b).

6. DRUG POLICY

Public expenditure on tackling drug abuse in the UK is allocated as shown in Fig. 9. About two thirds of the expenditure is spent on controlling the supply of drugs and one third on reducing demand. The aims of the UK government's drug control strategy are contained in the following Statement of Purpose:

"To take effective action by vigorous law enforcement, accessible treatment and a new emphasis on education and prevention to:

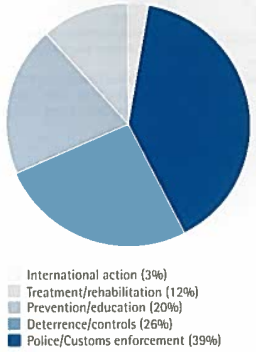
a) Increase the safety of communities from drug-related crime;

b) Reduce the acceptability and availability of drugs to young people; and

c) Reduce the health risks and other damage related to drug misuse" (Tackling Drugs Together, 1995).

Government policy to improve the services provided to drug abusers is strongly influenced by public health-related considerations relating to the HIV/AIDS epidemic. The Department of Health encourages the development of a range of treatment services to meet specific needs. Out-patient treatment is most common but in-patient treatment is also provided. More than 300 needle and syringe exchange schemes have been set up since

Fig. 9: Public expenditure on drug control in the UK 1993 – 94, US$791 million.



Source: HMSO London, 1995.

the mid-1980s. In addition to provisions made by the National Health Service, a range of non-governmental organizations offers treatment and rehabilitation services (UK Country Drug Profile, UNDCP 1994, Tackling Drugs Together, 1995).

Possession of a drug for the purpose of use is a specific criminal offence, which entails, in theory, imprisonment of up to seven years for category A (regarded as the most dangerous) drugs. Possession of cannabis for personal use usually leads to a cautioning, fine, or a short suspended term of imprisonment. The maximum penalty for drug trafficking is life imprisonment.

SOURCES AND/OR BASIS OF CALCULATION FOR THE SUMMARY STATISTICS

1. – 3., 5., 6.	UN 1996
4., 7. – 10.	UNDP 1996
11. – 14.	Economist Intelligence Unit 1994
15., 16.	Mott, Mirrlees-Black 1995
17., 18., 20., 21., 24., 26., 27., 34., 36. – 42.	Home Office Research and Statistics Department, 1992, 1994, 1995a, 1995b
19.	ISDD 1994; Dorn, Baker, Seddon 1994
22., 23.	European Centre for the Epidemiological Monitoring of AIDS 1996
25.	World Health Organization 1995
28. – 31., 33. – 35., 44.	UNDCP Annual Report Questionnaires database
43.	Tackling drugs together, A strategy for England 1995

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United States of America • Summary Statistics

BACKGROUND

1.	Population (1994)	260,341,000
2.	Population growth rate, (%) (1990 – 1994)	1.1
3.	15 – 24 year-old population (1994)	35,942,000
4.	Share of urban population, (%) (1993)	76
5.	Deaths/1,000 (1993)	6.9
6.	Births/1,000 (1993)	15.6
7.	Real GDP per capita, US$ (PPP$ 1993)	24,680
8.	HDI rate (1993)	0.94
9.	HDI rank (1993)	2
10.	Real GDP per capita (PPP$) rank minus HDI rank (1993)	0
11.	Unemployment rate, (%) (1994)	6.1
12.	Social security as % of GDP (FY 1994/95)	4.7
13.	Share of education of total public (federal) expenditure, (%) (FY 1994/95)	3.6
14.	Share of health of total public (federal) expenditure, (%) (FY 1994/95)	22

EXTENT AND PATTERNS OF DRUG USE

15.	Lifetime prevalence of drug use among 19 – 28 year-olds, (%) (1994)	57.5
16.	One-year prevalence of drug use among 14 – 24 year-olds, (%) (1994)	28.4
17.	Number of dependent users (weekly users of heroin and cocaine, 1993)	2,738,000
18.	Share of males among dependent users, (%) (treatment clients, 1993)	70.3
19.	Estimated number of dependent heroin users (weekly users, 1993)	500,000
20.	Share of persons under 21 years among dependent users, (%) (treatment clients, 1993)	11.1

CONSEQUENCES OF DRUG USE

21.	Percentage of injectors of dependent users (emergency-room data, 1993)	9.8
22.	Cumulative AIDS cases per 100,000 people (1995)	195.1
23.	Share of IDU-related AIDS cases in 1995, (%)	30.2
24.	Drug-related deaths per 100,000 people (1994, estimate, based on a 70% sample of autopsies)	4.6
25.	Share of under 25 year-olds of all deaths, (%) (1991)	4.1
26.	Share of under 25 year-olds of drug-related deaths, (%) (1994)	10.4
27.	Annual trend in the number of drug-related deaths, (%) (1988 – 1992)	–1.1

ILLICIT DRUGS MARKET

28.	Price of heroin at retail level, US$/g (1994, not pure)	80 – 500
29.	Price of cocaine at retail level, US$/g (1994, not pure)	20 – 200
30.	Price of methamphetamine at retail level, US$/g (1994, not pure)	40 – 150
31.	Price of cannabis (marijuana) at retail level, US$/g (1994, not pure)	1.4 – 16
32.	Consumption expenditure on illicit drugs, US$ million (1993)	48,700
33.	Consumption expenditure on heroin, US$ million (1993)	7,100

CRIME, LAW ENFORCEMENT AND DRUG POLICY

34.	Annual trend in the amount of seizures, (%) (in dosage units, 1990 – 1994)	+4.6
35.	Retail market value of seized drugs, US$ million (her., coc., amph., cann., stim., 1994)	17,000
36.	Offences of acquisitive crime per 100,000 people (known to police, 1994)	4,896
37.	Offences of violence per 100,000 people (known to police, 1994)	478
38.	Persons arrested for drug offences per 100,000 people (1994)	539
39.	Annual trend in the number of persons found guilty for drug offences, (%) (arrests, 1990 – 1994)	+5.9
40.	Share of possession offences out of all drug law offences, (%) (sentenced, 1992)	0.8
41.	Share of incarcerations of all drug law offenders found guilty, (%) (1992)	88
42.	Average length of prison sentences for drug-related offences, months (1994)	84.3
43.	Share of prevention and treatment of the public (federal) drug control budget, (%) (1994 – 95)	35

For sources and/or basis of calculation please see the end of this country profile

1. BACKGROUND

In 1994, the USA resident population was 260 million, of which 83.2% were white, 12.5% Afro-American, the rest being American Indians, Eskimos, Asians and others. People of Hispanic origin are included among whites and Afro-Americans in these figures (US Department of Commerce, 1995). The National Household Survey stated that for persons 12 years and older, the ethnic composition in 1994 was as follows:

White	75.9%
Afro-American	11.2%
Hispanic	9.1%
Other	3.8% of the total population.

Immigration has always been a major source of population growth in the USA. Mexico is by far the largest source of new immigrants, accounting for 53% of all new immigrants in 1981 – 90. Other countries with significant immigrant flows to the USA include the Philippines, Vietnam, China, South Korea, El Salvador, Jamaica and Cuba. Net immigration constituted approximately 30% of the total growth during 1981 – 90 (Economist Intelligence Unit, 1995).

Provision of welfare and medical services was progressively standardized and extended by federal legislation during the 1960s and 1970s. Although provision of health insurance for employees has been mandatory since 1975, many employees do not fall under these provisions. 'Medicaid' is a comprehensive scheme of public medical care for low-income families. Nevertheless, private medical insurance is widespread as nationally provided programmes are narrowly targeted, leaving the majority of the population uncovered. In general, medical care is exceptionally expensive in the USA. Social security accounted for 21.8% of federal budget outlays in the fiscal year (FY) 1994/95. 'Medicare' – a social security programme for the elderly and disabled – and health outlays were 14.5% and 7.5%, respectively.

Education is primarily the concern of state and local governments, though some federal funds are available to help special needs (3.6 % of federal government outlays in FY 1994/95). States have kindergartens and elementary, junior high and high schools. Education is free at all these levels except at private schools which are attended by 14.4% of the total of pupils from nursery to college. Educational attainment is highest among whites, followed by Afro-Americans, the most disadvantaged group being Hispanics. The latest available estimates for Asian and Pacific Islanders were for 1990, when this group had the highest percentage of completing at least four years of high school or college.

Unemployment among 16 – 19 year-olds has remained high, around 20%, despite federal programmes to provide employment. As a rule the unemployment rate of high school drop-outs was double the rate of high school graduates for all ethnic groups. The decision of young people to leave high school before graduation lowers their employment prospects. A recent study showed that the loss in lifetime earnings for high school drop-outs in comparison to those finishing education was US$360,000 in wages and US$90,000 in fringe benefits (Cohen in The White House, 1996). The total unemployment rate was 6.1% in 1994, the lowest in the 1990s. The unemployment rate was 5.3% for whites, 11.5% for Afro-Americans, and 9.9% for Spanish speakers.

2. EXTENT AND PATTERNS OF DRUG USE

Self-reported drug use data are gathered by various general population surveys in the USA. An annual survey called 'Monitoring the Future' studies drug use among secondary school and college students, thus covering ages 14 to early 30s. The National Household Survey on Drug Abuse presents the situation among persons aged 12 years and over.

The 'Monitoring the Future' survey has been conducted since 1975. During the last half of the 1970s, the prevalence figures continued growing, but went into continuous decline from the early 1980s until the early 1990s. In 1993, the

lifetime, annual, monthly and daily prevalence rates for any illicit drug use[1] among twelfth graders rose (17 – 18 years old) for the first time in more than a decade.

In the USA, the most popular drug by far is cannabis. In the beginning of the 1980s, over half of high school graduates had tried it. The lifetime prevalence of cannabis closely follows the trend of the "any illicit drug" prevalence (see Fig.1). In 1994 over 10% of twelfth graders had tried the following drugs (in descending order of prevalence) – inhalants, amphetamine-type stimulants (ATS), hallucinogens (mainly LSD).

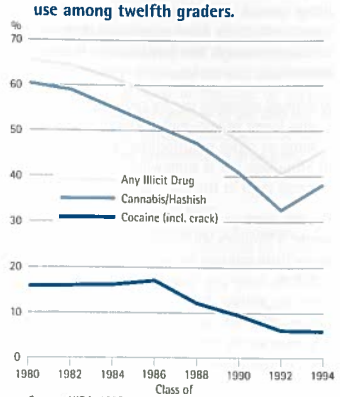
Comparison of the prevalence rates in the eighth, tenth and twelfth grades in the 1990s shows that, among eighth graders, inhalants have been tried by one in every five, ahead of cannabis at 16.7%. For ATS, tenth graders have the highest annual prevalence – 10.2% – while for the other two groups, prevalence is below 10%.

The 'Monitoring the Future' survey reports a statistically significant growth in the past-month use of cannabis and hallucinogens for all three age groups in 1993 – 94. The use of crack and powder cocaine, and of heroin, is growing at statistically significant rates among the youngest group. As far as daily use is concerned, only cannabis reaches prevalence rates above 1% and it is also the only drug which registered a statistically significant ascending usage rate in 1993 – 94. In general, higher proportions of males than females are involved in illicit drug use, especially heavy drug use.

Illicit drug use during the past year among male twelfth graders was somewhat higher than the female rate in 1994 (39% vs 33%). Any past-year illicit drug use other than cannabis was fairly similar in both sexes (19% to 17%).

The daily use of cannabis among twelfth grade males was more than double the rate of females (5.1% vs 2.0% of females). Other drugs that are clearly used more often by senior year males were:

Fig. 1: Lifetime prevalence of illicit drug use among twelfth graders.



Source: NIDA, 1995.

LSD, phencyclidine (PCP), heroin, cocaine, crack cocaine and inhalants. However, the differences were smaller among eighth and tenth graders. This suggests that females start experimenting with drugs earlier than males, but that in the late teens they have been overtaken by males (US Department Of Health and Human Services, 1995).

In the case of opiates other than heroin and barbiturates, the annual prevalence rate for twelfth grade females was almost as high as for males. Females had higher annual prevalence rates than males for stimulants at all grade levels. Similarly, tranquillizers were used by more females than males in grades eight and ten. The survey also shows that females took a smaller range of drugs and tended to use them with less frequency than their male counterparts.

The overall rate of illicit drug use was similar throughout the country in 1994 – the highest rate was in the northeast, followed by the north, central and west. The south of the USA had the lowest rate. The rates ranged from 34% to 39%.[2]

1) "Any illicit drug use" includes any use of cannabis, LSD, other hallucinogens, crack, other cocaine, heroin, or any use of other opiates, stimulants, barbiturates, methaqualone (excluded since 1990), or tranquillizers not under a doctor's orders. It does not include inhalants.
2) Definition of the four major regions corresponds to that of the US Bureau of the Census.

In general, differences in the use of most illicit drugs across the different community sizes are small, reflecting how widely illicit drug use has diffused through the population. However, some differences can be found:

a) Annual cannabis use by high school graduates was lower in non-metropolitan areas than in large or other metropolitan areas; and
b) Stimulant use is somewhat higher in non-urban areas than in the metropolitan areas.

By the time a student has reached the twelfth grade, a family's socio-economic status bears relatively little relation to most drug use. However, the students from the lowest socio-economic stratum seem to initiate their drug use earlier than their better-off peers. Some of the differences are actually reversed by the twelfth grade, with the highest rates of use observed in the upper socio-economic strata. This is true for cannabis, inhalants, hallucinogens, and LSD, but not for cocaine, crack, heroin, stimulants, or barbiturates.

As for ethnic differences, Afro-Americans in secondary schools report the lowest prevalence rates across the board. Whites in the twelfth grade have the highest annual and lifetime rates for many drugs, including cannabis, inhalants, hallucinogens (LSD specifically), opiates other than heroin, ATS, barbiturates and tranquillizers. Not all these findings are the same at lower grade levels. Hispanics have the highest annual and lifetime prevalence rates in the twelfth grade for crack and cocaine powder. Their rate of cocaine use is particularly high compared to the other two ethnic groups.

According to the National Household Survey on Drug Abuse (NHSDA) the total number of illicit drug users has not changed since 1992, following more than a decade of decline since the peak year of 1979. No change in the number of weekly cocaine users has been detected since the survey first established this in 1985, indicating a continuing demand for drug abuse treatment services. However, the number of occasional cocaine users has declined dramatically. In an average month of 1994:

a) 13 million Americans used illicit drugs;
b) 10 million Americans used cannabis; and
c) 1.4 million Americans used cocaine.

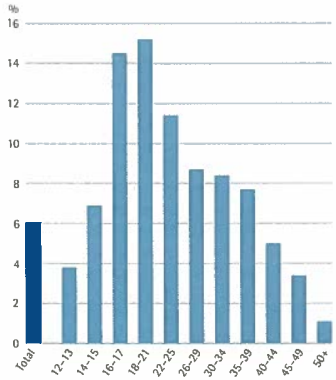
Between 1992 and 1994 the rate of past-month cannabis use among 12 – 17 year-olds nearly doubled. The upward trend in cannabis use among youth continued in 1995 (The White House, 1996).

There has been a shift in the age of illicit drug users. The average age of current illicit drug users – i.e., those who have used any illicit drugs during the past month – has risen steadily since 1979. Nevertheless, in 1994 the highest rates of current illicit drug use were among persons 18 – 21 and 16 – 17 years old. The prevalence rate for all persons over 12 years-old was 6.0% (see Fig. 2).

Among persons 18 – 34 years old, those who had not completed high school had the highest rates of illicit drug use. However, owing to the fact that high school drop-outs are a minority among the general population, three-quarters of illicit drug users and 63% of cocaine users in this age group were high school graduates.

Current employment status is also correlated with rates of illicit drug use, as 13.9% of unemployed adults (aged 18 and older) were current illicit drug users in 1994, compared with 6.7% of employed

Fig. 2: Current illicit drug use in the USA in 1994.



Source: NIDA, 1995.

adults. Of all current illicit drug users aged 18 and older (eight million persons) 74% were employed, whereas 94% of the general population were employed (US Department of Health and Human Services, 1995; US Department of Commerce, 1995).

NHSDA confirms low prevalence rates for teenage Afro-Americans, although for those over 25 the rate is higher than in other ethnic groups. The 'Monitoring the Future' survey has established that, in the case of cannabis, changes in perceived harmfulness of the drug have preceded changes in prevalence of use by one year. Hence, the 1993 – 1994 upsurge in use could be foreseen in the decline of the perceived risk of the drug.

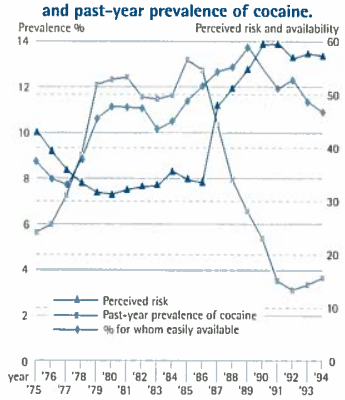
The report puts forward several explanations for the recent decline in the perceived risk. First, fewer students nowadays have peers who are heavy users, thus knowledge of the effects of heavy use is less common. Second, media coverage of anti-drug messages has declined substantially in recent years. Third, some of the current rap, rock and other groups have started to praise the effects of cannabis and other drugs, which lead youngsters to make false judgements about the dangers of drug use.

Attitudes towards the risks of cocaine are also correlated with changes in use. The perceived harmfulness of the drug surged 10 percentage points in 1987, at the time of intensive media coverage of crack use. In 1986 some celebrities died of cocaine overdose, which reinforced the dangerous image of the drug. However, the perceived risk has decreased since 1991.

The attitude part of the survey also includes a question on the perceived availability of drugs. Comparison of perceived availability and perceived risk with past-year prevalence of drug use gives an indication as to which strategy has a greater impact on drug use – demand reduction or supply reduction. Supply-reduction measures should reduce drug use through reduced availability (or higher price). Demand-reduction efforts are aimed at changing the perceptions and attitudes of potential drug users.

Statistically, the association of past-year use of cocaine and its perceived availability is very weak, whereas growth in perceived risk of trying cocaine once or twice is followed by lower prevalence of use.[3] Therefore, the survey gives more credit to demand reduction activities, at least in the case of cocaine (for further discussion, see Section 6; see also Fig. 3). NHSDA also reports a negative correlation between perceived high risk and prevalence of drug use.

Fig. 3: Perceived risk, availability and past-year prevalence of cocaine.



Source: US Department of Health and Human Services, 1995.

3. CONSEQUENCES OF DRUG USE

The most direct measure of the extent of serious drug problems comes from the Drug Abuse Warning Network (DAWN) system, which collects information from a sample of emergency rooms and medical examiner offices in more than twenty major metropolitan areas.

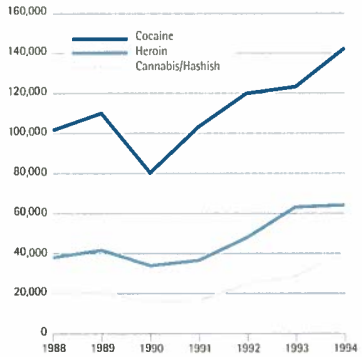
In the USA, cocaine is the drug most often mentioned – or referred to – in emergency-room data, apart from alcohol in combination with other substances. Depressants, including tranquillizers and

3) The correlation coefficient between perceived availability and past-year prevalence was close to zero, whereas the correlation coefficient for perceived risk and past-year prevalence was –0.85.

sedatives, more often cause emergency-room visits than opiates. Non-narcotic analgesics and anti-depressants are more often mentioned than cannabis/hashish.

Throughout most of the 1980s, the DAWN series showed a dramatic increase in the number of emergency-room visits and deaths related to cocaine and heroin, with little decrease for other illicit drugs (Reuter, 1995). In the 1990s references to cocaine, heroin and cannabis/hashish have all increased (see Fig. 4).

Fig. 4: Emergency-room references to particular drugs.



Source: SAMHSA, 1995.

The DAWN data show that the age composition of drug users is changing towards more patients aged 35 and over. In 1979, 12% of cocaine-related episodes involved persons of this age group. By 1993, their share had grown to 38% (US Department of Health and Human Services). In 1994, the age group with the highest rate of drug-related emergency episodes was 26 – 34 for cocaine (35 – 44 second highest) and 35 – 44 years for heroin (SAMSHA, 1995).

Of all the drug-related emergency-room visits (including alcohol), 54% occurred among whites, 28% among Afro-Americans and 10% among Hispanics. For 8% the ethnic group was unknown.

An estimated 945,000 clients were in substance abuse treatment on September 30, 1992. By the end of 1995, more than 510,000 AIDS cases had been reported in the USA. The estimated number of adult HIV infections was 700,000 in 1994 – in other words 0.5% of the population aged 15 – 49 was carrying the virus.

The National Institute of Drug Abuse (NIDA) monitors AIDS prevalence among injecting drug users (IDUs). In many of its reporting areas, the share of injecting drug use (IDU) has been growing as a mode of transmission during the 1990s. Nationally, IDU as the sole mode of transmission, grew from 20% of the cumulative AIDS cases in June 1989 to 24% in June 1994. The dual mode of transmission through IDU/homosexual relationships accounted for 7.0% in 1989 and 6.5% in 1994 cases respectively.

Gender and ethnic composition of IDU AIDS cases were reported by only a few cities. In Boston, Los Angeles, New York (City), and San Francisco, cumulative heterosexual IDU AIDS cases were more likely to be Afro-American and male than the general population. Nationally, women comprise a quarter of all IDU AIDS cases (US Department of Health and Human Services, NIDA, 1994). Needle exchange and public health outreach education programmes in Chicago were found to reduce risk-taking behaviours, such as needle sharing, from 100% to 14% over a four-year period (US Department of Health and Human Services, NIDA, 1994).

In 1988 – 1994, drug-related mortality (illicit drugs with or without alcohol) ranged from 6,000 – 8,500 cases annually in the metropolitan areas included in the survey, but the data do not include all such deaths that occurred in the USA. Drug-related mortality decreased slightly in the beginning of the 1990s, and began to rise again in 1993 – 94. However, the number of metropolitan areas has not been constant during the whole period, so the changes in the total number of deaths may not indicate an actual trend. During 1991 – 1994, however, a genuine growth was recorded by the 26 metropolitan areas that reported deaths throughout the period. The highest number of drug-related deaths were recorded in New York and in Los Angeles.

The most important single substance was cocaine, mentioned in 49% of all cases in 1994. The biggest drug group was opiates, which were mentioned in 68% of cases (one case may involve several drugs). Depressants were mentioned in 19.6% of cases. The drug-specific trends in mortality were rising in 1991 – 1994, especially for amphetamines, cocaine and opiates.

DAI and DATI

Cocaine gathers the highest composite ranking in The Drug Abuse Index (DAI). Thus, it is understandable that efforts concentrate on reducing the abuse of cocaine. Opiates, mainly heroin, rank highest among all drugs in mortality and in the prevalence of injecting use, both being very important indicators of social costs. In the absence of other sources, prevalence of injecting use is based on the administration route mentioned in the DAWN emergency-room data. Morbidity, represented here by emergency-room cases, is dominated by cocaine, opiates and depressants (including tranquillizers and sedatives). Cannabis gets almost half of its ranking points through its high prevalence rate (see Fig. 5).

The Drug Abuse Trend Index (DATI) shows that some drugs have both positive and negative developments. Negative developments are mostly connected to abuse in general, or injecting, and growth rankings relate to morbidity and mortality. The most alarming growth in problems relates to cannabis, opiates and ATS. Inhalants, cocaine and hallucinogens also have fairly high positive trends. Depressant-related problems are decreasing (see Fig. 6).

Fig. 5: Drug Abuse Trend Index (DAI) – USA.

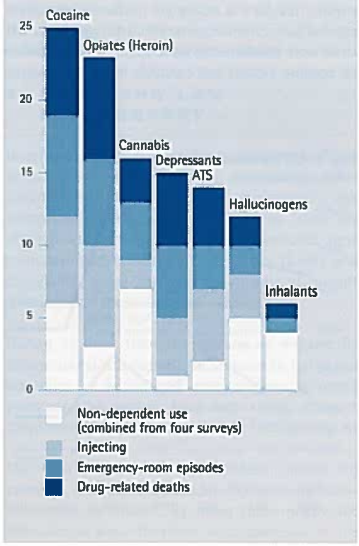
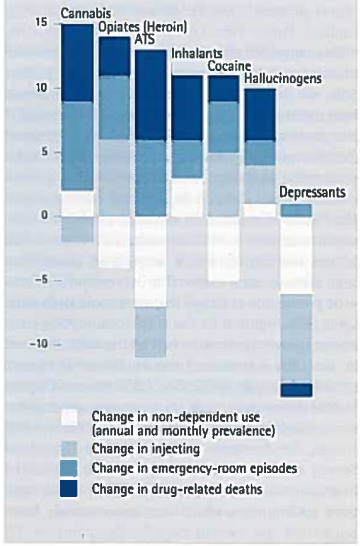


Fig. 6: Drug Abuse Trend Index (DATI) – USA.



4. ILLICIT DRUGS MARKET

The trafficking of cocaine to the USA from source countries in the Andean region has been managed primarily by Colombian criminal organizations.

The US heroin scene is dominated by high-purity South-East Asian heroin. Other source countries are Mexico and Colombia. Although South American heroin does not represent a considerable share of the market, its availability is reported to be increasing steadily. Heroin consumption by means of inhaling, or 'chasing the dragon', has increased in these areas where high purity heroin is available. This route of administration seems to have made the drug more acceptable and easier to use than before (ONDCP Pulse Check in The White House, 1996).

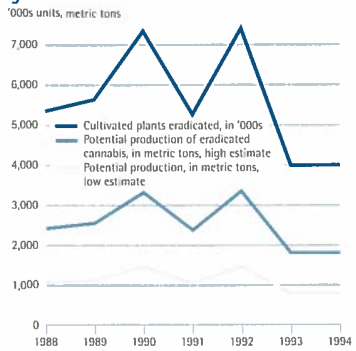
According to the US Drug Enforcement Agency (DEA), more than half of the cannabis used in the USA originates from Mexico. Other source countries are Colombia, Venezuela, and possibly Jamaica. Domestically, cultivated cannabis accounts for approximately one fourth of the US market. A report prepared for the Office of National Drug Control Policy (see Lockwood Chalma, Boyum, 1994) suggested that domestic production provides at least half the US consumption. In 1993, 25 – 50% of the estimated amount consumed would have been about 250 – 510 tonnes of cannabis, if the consumption figure of 1,025 tonnes is accepted (see Reuter, 1995). However, in the light of cannabis eradication statistics (eradication of wild growth excluded here) there is an apparent discrepancy in the figures. The potential cannabis production that was eradicated in 1993 amounted to 800 – 1,800 tonnes (see Fig. 7). If one accepts an assumption that 50% of total cultivation is eradicated, domestic production reaching the users could have been up to 80% higher than the total consumption cited above. If one quarter to a half of the cannabis used in the USA is produced locally, the total market would be as high as 3,200 – 7,200 tonnes. Clayton (1995) estimated that US cannabis production minus eradication would be around 2,000 – 2,500 tonnes. On the basis of the National Household Survey on Drug Abuse, his study also calculated that cannabis consumption in 1988 would have been 1,470 tonnes, which may systematically leave out some heavy users of cannabis. To summarize, US cannabis production is extensive and capable of providing a considerable share of the domestic market, but the available information does not lend itself to precise estimates.

In 1994, the five states in which most cannabis was illicitly cultivated were Hawaii, Kentucky, Tennessee, California, and Alabama. These states accounted for 60% of the eradication of cannabis cultivated outdoors (NNICC, 1995). Cannabis is also increasingly cultivated indoors in order to avoid detection, and to take advantage of the latest agronomic technology to optimize growing conditions (ARQ 1993).

The illicit manufacture of drugs is also widespread. According to reported laboratory detections, the main drug group seems to be ATS, followed by hallucinogens, depressants, cocaine and opiates. Methamphetamine is the single most frequently reported drug of illicit manufacture. Diversion of depressants from licit sources is reported to be frequent (NNICC, 1995).

The USA is the largest single drug market in the world. This fact is reflected in the consumption expenditure estimates, according to which US citizens were estimated to have spent US$48.3 billion on cocaine, heroin and cannabis in 1993. However,

Fig. 7: US cannabis eradication results.



Source: ARQs, Clayton (1995), BOTEC Analysis Corporation, 1994.

the total expenditure on cannabis, cocaine and heroin declined in 1988 – 1993 by 23% in current dollars (Reuter, 1995). In real terms, the decrease was 37%. However, more than reflecting the size of an overall down-turn in the drug market, this may be an indication of increased popularity of other drugs excluded from the expenditure estimate. ATS are considered to be competing partly for the same clients as cocaine. The retail price of methamphetamine has been declining and its purity increasing (UNDCP, 1996).

Inside the USA, considerable price differences exist, and there is a wide variation between minimum and maximum prices. This is partly a reflection of the vast size of the country and its different local market conditions. Studies of wholesale cocaine prices have shown that the variability of prices drops sharply when they are studied in terms of transaction size or location. Large transactions generally represent an earlier stage in the distribution process. Florida, as the principal point of entry of cocaine, has consistently lower prices than the rest of the country, and in New York, a large retail market, the prices are higher than in Florida, but lower than in other parts of the country (Reuter, Crawford, Cave, 1988).

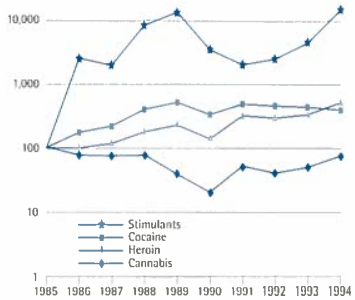
5. CRIME AND LAW ENFORCEMENT

In terms of drug seizures, drug interdiction efforts seem to be most successful in tracking down cocaine – 84% of the drug seizures converted into dosage units were those of cocaine in 1994. The other drugs seized in considerable amounts were cannabis (10.6% of seizures), heroin (3.5%) and stimulants (1.6%). The interception rate of cocaine is thought to range from 20 – 30%.

During 1985 – 1994 the growth in seizures (in dosage units) was highest for stimulants, but it was also high for heroin and methaqualone. In recent years cannabis seizures have been rising, although they are still at a lower level than in 1985 (see Fig. 8).

The USA has reported street-level prices for cannabis, cocaine, heroin, LSD, PCP, and methamphetamine to UNDCP. By using these prices and 1994 seizure data converted into dosage units, the

Fig. 8: Drug seizures in the USA.



1985 = 100, logarithmic scale.
Source: ARQs from various years.

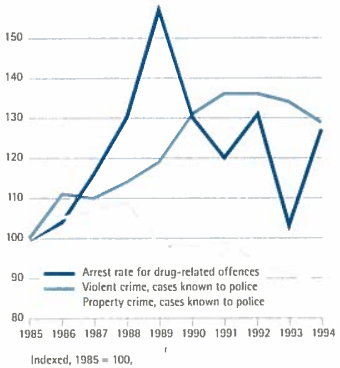
street value of the above-mentioned drugs seized would have been around US$17 billion, of which more than US$11 billion was the value of seized cocaine. Cannabis, cocaine, and heroin together accounted for 99% of the seizures' street value.

Two broad classes of crime in the USA are violent crimes and property crimes. Violent crime includes murder, non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Property crime includes the offences of burglary, larceny-theft, and motor vehicle theft. It seems that drug law offences are not very closely related to property crime or to violent crime. The rate of property crime actually decreased from 1985 by 10%, whereas 1994 rates for both violent crime and drug-related offences were about 30% higher than in 1985. However, the rate of drug-related offences is more volatile than that of violent crime (see Fig. 9).

In 1992, 30% of victims of violent crimes claimed that their assailants were under the influence of drugs or alcohol. In 1991, 50% of prison inmates admitted having used drugs in the month before the offence and 31% had been under the influence of a drug at the time of the offence.

Overall, 10% of federal prison inmates and 17% of state prison inmates said they committed their offence in order to obtain money for drugs.

Fig. 9: Drugs and other crimes in the USA.



Indexed, 1985 = 100,
Source: Sourcebook of Criminal Justice Statistics, 1994.

Inmates imprisoned for robbery, burglary, and drug trafficking most often committed their crime to obtain money for drugs (US Department of Justice, Drugs and Crime Facts, 1994). Drug law offenders are imprisoned more often than other offenders and they receive longer sentences. The trend towards more severe punishment has increased during the last decade and the length of sentence has grown more rapidly for drug law offenders than for other offenders. Whereas in 1985, 76% of drug law offenders were sentenced to prison, by 1992 the share had increased to 88%. The average length of prison sentences for drug law offences rose from 65 months in 1985 to 84 months in 1994 (see Fig. 10).

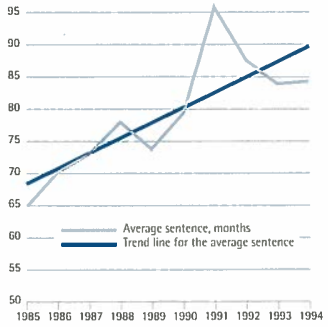
For these reasons, drug law offenders constitute a growing share of the prison and jail population[4]. In federal prisons, drug offenders accounted for 61% of sentenced inmates in 1993, up from 38% in 1980. The proportion of drug offenders in state prisons increased from 9% in 1986 to 21% in 1991, and in local jails, their share increased from 9% in 1983 to 23% in 1989 (Drugs and Crime Facts, 1994). The total number of prisoners in state and federal institutions almost tripled between 1980 and 1993 from 316,000 to 910,000 persons (US Department of Justice, 1995).

Of drug law offenders sentenced to a prison term, 84% were male in 1992. Hispanic and Afro-Americans were over-represented among them. Of those sentenced to imprisonment 37% were 21 – 30 year-olds. The second largest age group was 31 – 40 year-olds (33%).

Possession (and other non-trafficking) offences accounted for only 0.8% of all sentences imposed in 1992. The rate of imprisonment for these offences actually declined between 1985 – 1992, as did the average length of imprisonment. The heavy hand of justice has thus been increasingly directed towards drug trafficking.

Reuter (1995) points out that the increasing imprisonment of drug law offenders has taken up to 600,000 drug users off the streets and thus reduced the number of potential emergency-room clients. He welcomes the monitoring of drug use among the increasing number of persons under

Fig. 10: Average length of prison sentences given in US District Courts for drug-related offences.



Source: US Department of Justice, 1995.

4) People with minor sentences, or those waiting for a trial are kept in city or county jails, often located near or in the court houses, while those serving longer sentences are kept in state or federal prisons.

supervision of the probation and parole agencies. However, he warns that the high number of drug users who are kept out of circulation in prison may lead to a distorted perception of the drug problem. The drug problem might worsen rapidly when this population is again back on the streets, if their drug-use behaviour has not changed.

6. DRUG POLICY

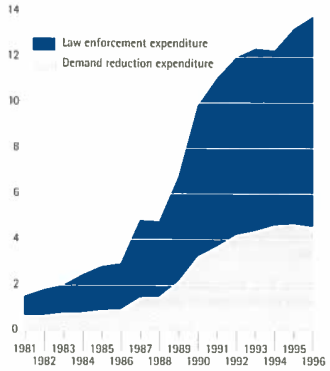
The balance between federal demand reduction and supply reduction activities has shifted over the years: in 1981, 46% was spent on demand reduction, compared to 38% in 1994. It has been suggested that when state funds are taken into consideration, supply reduction measures may account for at least 80% of the expenditure (Harrison, 1995).

Federal drug control spending soared between 1981 and 1994 (see Fig. 11). In 1995 and 1996, the federal drug control budget surpassed US$13 billion. In 1995, this figure amounted to 0.9% of the estimated US government budget expenditure.

Drug control expenditure should be supported with an estimate of the social costs caused by drug abuse. In 1983, the costs were estimated at approximately US$60 billion (Reuter, Crawford, Cave, 1988). The 1996 National Drug Strategy gives an estimate of US$67 billion. On this basis, the annual social costs seem to be at least four to five times higher than drug control costs. It therefore seems plausible that the social costs that were avoided through drug control may have been greater than the control expenditure, although some of the social costs are related to illegality of drug use.

The US National Drug Control Strategy distinguishes 'casual' or occasional drug users from 'hard-core' drug users, recognizing that the latter cause more harm to themselves and to society. These user groups are treated differently: treatment and rehabilitation, as well as law enforcement measures are considered more important in dealing with the hard-core drug users. The first Clinton administration increased efforts to provide treatment services to those in need, recognizing that in many cases several courses of treatment are necessary before full recovery. More

Fig. 11: US Federal grug control spending by function, US$ billion.



Sources: US National Drug Control Strategy, several years.

attention has also been given to the recent growth of drug use among adolescents (The White House, 1996).

In the USA, use of drugs is not an offence *per se*, but possession of drugs is punishable by law. For the first offence of possession for personal use the maximum penalty - in addition to fines – is one year of imprisonment. The judge may sentence a first-timer to an alternative punishment rather than imprisonment. For repeated possession offences, the penalty increases to a maximum of three years (UN 1988 and 1989).

Manufacturing, trafficking and other drug supply-related offences can be punished with life imprisonment, or in cases with aggravating circumstances, the death penalty may be applied, if it is allowed in the State in question. Apart from federal laws, each state also has its own drug legislation (UN 1988 and 1989).

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4., 7. – 10.	UNDP 1996
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Drug abuse is one of the most important social issues of our time. Illicit drugs kill people and destroy families. They have the power to undermine international relations, disrupt financial systems, and corrupt governments. Despite drugs being one of the international community's most important contemporary concerns, information on illicit drug use and supply is limited, obscured by its very illegality.

This report – commissioned by UNDCP, the United Nations programme responsible for coordinating international action against illicit drugs – takes us beyond the rhetoric normally surrounding the issue and provides pragmatic and concise explanations of many aspects of the drug issue. It reveals the drug problem to be truly international in impact and multi-dimensional in nature. Starting with an overview of current knowledge, the report goes on to shed some light on those issues which are less known to us: the reasons people take drugs, the health and social consequences of drug abuse, and the economics of the global illicit drug industry. It also examines national and international responses to the drug issue and deals with many of the contentious questions surrounding international drug policy, including the debate on legalization.

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